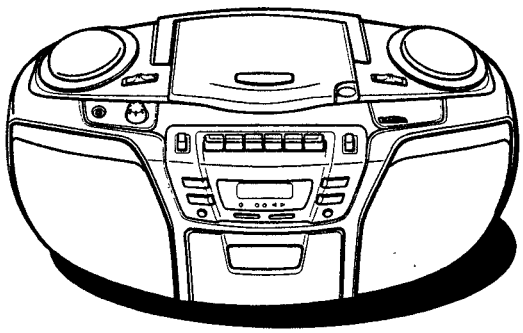
aiwa

aiwa SERVICE

CSD-ED78
CSD-ED76
CSD-ED68
CSD-ED66
CSD-ED26
CSE-ED16

SERVICE MANUAL



COMPACT DISC STEREO
RADIO CASSETTE RECEIVER

- BASIC TAPE MECHANISM: TN-21ZVC-1759 <68/66/26/16>
  TN-51RV-233 <78/76>
- BASIC CD MECHANISM: KSM-213CDM
- TYPE: U<76/66/26/16>
  LH<78/68>
  U1<78/68>

改 定 版

REVISION PUBLISHING

このサービスマニュアルはシンプル版（S/M Code No. 09-985-262-9T1）の改定版です。
差し替えて使用してください。

This Service Manual is the "Revision Publishing" and replaces "Simple Manual"
(S/M Code No. 09-985-262-9T1).

S/M Code No. 09-985-262-9R1

SPECIFICATIONS

Tuner section
Frequency range, antenna — FM: 87.5 - 108.0 MHz Rod antenna, AM: 530/531 - 1,710/1,602 kHz (10/9 kHz/step) Ferrite bar antenna

Deck section
Track format — 4 tracks, 2 channels / Frequency range — Normal tape: 50 - 12,500 Hz (EIAJ) / Recording system — AC bias / Erasing system — Magnet erase / Heads — Recording/playback head (1), Erasure head (1)

CD player section
Disc — Compact disc / Scanning method — Non-contact optical scanner (semiconductor laser)

General

ED76/66:
Speaker — 100 mm cone type (2), 27 mm ceramic type (2) / Output — Headphones jack (stereo mini-jack) / Power output — 2.5 W + 2.5 W (EIAJ 6.8 ohms DC) / Power requirements — DC 12 V using eight size C (R14) batteries, AC 120 V, 60 Hz / Power consumption — 12 W
Dimensions (W × H × D) — 460 × 184 × 261 mm ($18\frac{1}{8} \times 7\frac{1}{4} \times 10\frac{3}{8}$ in.)
Weight (excluding batteries) — CSD-ED76: 4.3 kg (9 lbs. 8 oz.), CSD-ED66: 4.1 kg (9 lbs. 1 oz.)

ED78/68:
Speaker — 100 mm cone type (2), 36 mm cone type (2) / Output — Headphones jack (stereo mini-jack) / Power output — 4.5 W + 4.5 W (EIAJ 3.2 ohms DC) / Power requirements — DC 12 V using eight size C (R14) batteries, LH model: AC 110 - 120 V/220 - 240 V switchable, 50/60 Hz, U1 model: AC 120 V, 60 Hz / Power consumption — 27 W /
Dimensions (W × H × D) — 460 × 184 × 261 mm / Weight (excluding batteries) — CSD-ED78: 4.5 kg, CSD-ED68: 4.3 kg

ED26/16:
Speaker — 100 mm cone type (2) / Output — Headphones jack (stereo mini-jack) / Power output — 2.5 W + 2.5 W (EIAJ 7 Ω ohms DC) / Power requirements — DC 12 V using eight size C (R14) batteries, AC 120 V, 60 Hz / Power consumption — 12 W
Dimensions (W × H × D) — 460 × 168 × 261 mm ($18\frac{1}{8} \times 6\frac{5}{8} \times 10\frac{3}{8}$ in.)
Weight (excluding batteries) — 4 kg (8 lbs. 13 oz.)

COPYRIGHT
Please check the copyright laws relating to recordings from disc, radio or external tape for the country in which the machine is being used.

- Design and specifications are subject to change without notice.

ACCESSORIES/PACKAGE LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

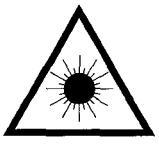
REF. NO		PART NO.	KANRI NO.	DESCRIPTION
⚠	1	87-A80-027-010		AC CORD SET,U BLK SPT2<U,U1>
⚠	1	87-A80-036-010		AC CORD SET ASSY,E W/FLTR VOL<LH>
	2	88-CH6-905-010		IB,ESP<U>
	2	88-CHG-907-010		IB,ESP<LH,U1>
	3	87-CH6-951-010		RC UNIT,RC-6AT03
⚠	4	87-A90-312-010		PLUG,CONVERSION WTN-1157R1<LH>

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynling laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

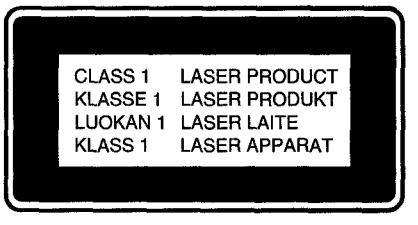
ATTENTION

L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL!

Usynlig laserstråling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

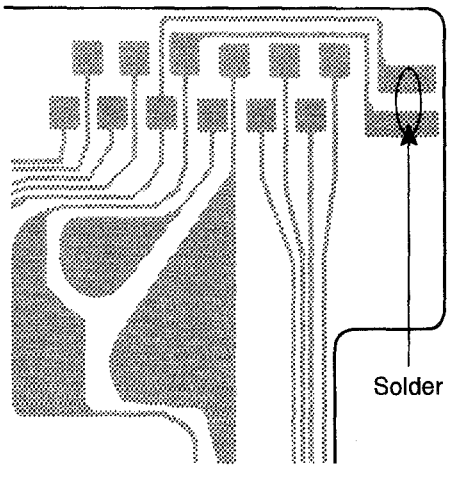


Precaution to replace Optical block (KSS-213C)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

1) After the connection, remove solder shown in the right figure.

PICK-UP Assy P.C.B



ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-A20-446-010		C-IC,LA9241ML
	87-A20-946-040		C-IC,MM1434XF
	87-A20-569-010		IC,BA3308
	87-A20-591-010		IC,BA5417
	87-A20-187-010		IC,LC78622E
	87-A20-856-010		IC,BA6898S
	87-017-714-110		IC,LA1836
	87-070-127-110		IC,LC72131 D
	87-CH6-609-010		IC,LC587008-1K43
	87-NF8-614-010		IC,SPS-442-1-W
TRANSISTOR			
	87-026-287-080		TR,DTC143ES
	87-026-462-080		TR,2SC1740 S(RS 0.3W)
	87-026-245-080		TR,DTC114ES
	89-318-155-080		TR,2SC1815 (0.4W)
	87-026-464-080		TR,DTC114TS (0.3W)
	89-318-154-080		TR,2SC1815 (0.4W)
	89-320-011-080		TR,2SC2001 (15W)
	87-A30-226-010		TR,2SB1655E
	87-026-463-080		TR,2SA933S (0.3W)
	89-113-184-080		TR,2SA1318T
	89-112-965-080		TR,2SA1296 (0.75W)
	87-026-291-080		TR,DTC124XS
	87-A30-092-080		FET,2SK439E/F
	89-305-352-380		TR,2SC535(B/C)
	89-319-233-080		TR,2SC1923 (0.1W)
	87-026-214-080		TR,DTA114YS (0.3W)
	87-026-269-080		TR,DTA114ES
DIODE			
	87-020-465-080		DIODE,1SS133 (110MA)
	87-A40-465-010		DIODE,FR202
	87-027-607-080		ZENER,HZ7B3L
	87-A40-291-080		DIODE,1N4148 (CPT)
	87-027-652-080		ZENER,HZ9A1L
	87-027-552-080		ZENER,HZ6B3L
	87-027-349-080		ZENER,HZ6A1L (5MA)
	87-A40-234-080		ZENER,MTZJ5.6A
MAIN C.B			
C1	87-010-401-080		CAP, ELECT 1-50V
C2	87-010-401-080		CAP, ELECT 1-50V
C3	87-010-406-080		CAP, ELECT 22-50
C4	87-010-406-080		CAP, ELECT 22-50
C5	87-010-405-080		CAP, ELECT 10-50V
C6	87-010-405-080		CAP, ELECT 10-50V
C11	87-010-374-080		CAP, ELECT 47-10V
C23	87-018-128-080		CAP, CERA-SOL SS 560P
C24	87-010-263-080		CAP, ELECT 100-10V
C25	87-018-131-080		CAP, CER 1000P-50V
C26	87-018-131-080		CAP, CER 1000P-50V
C27	87-010-248-080		CAP, ELECT 220-10V
C28	87-018-119-080		CAP, CER 100P-50V
C29	87-018-119-080		CAP, CER 100P-50V
C30	87-010-260-080		CAP, ELECT 47-25V
C31	87-018-205-080		CAP, CERA-SOL 0.022
C32	87-018-205-080		CAP, CERA-SOL 0.022
C243	87-018-209-080		CAP, CER 0.1-50V
C244	87-018-209-080		CAP, CER 0.1-50V
C245	87-010-405-080		CAP, ELECT 10-50V
C246	87-010-405-080		CAP, ELECT 10-50V
C247	87-010-405-080		CAP, ELECT 10-50V
C248	87-010-374-080		CAP, ELECT 47-10V
C261	87-010-401-080		CAP, ELECT 1-50V
C262	87-010-401-080		CAP, ELECT 1-50V
C263	87-018-131-080		CAP, CER 1000P-50V
C264	87-018-131-080		CAP, CER 1000P-50V
C265	87-010-383-080		CAP, ELECT 33-25V
C266	87-010-383-080		CAP, ELECT 33-25V
C267	87-010-380-080		CAP, ELECT 47-16V
C268	87-010-380-080		CAP, ELECT 47-16V
C271	87-010-236-080		CAP,E 1000-10 SME<76UST>
C271	87-010-221-080		CAP, ELECT 470-10V <EXCEPT 76UST,68U1S,68LHS>
C272	87-010-236-080		CAP,E 1000-10 SME<76UST>
C272	87-010-221-080		CAP, ELECT 470-10V <EXCEPT 76UST,68U1S,68LHS>
C275	87-010-403-080		CAP, ELECT 3.3-50V <EXCEPT 66UST,26UST,16UST>
C276	87-010-403-080		CAP, ELECT 3.3-50V <EXCEPT 66UST,26UST,16UST>
C277	87-010-260-080		CAP, ELECT 47-25V
C278	87-010-384-080		CAP, ELECT 100-25V
C279	87-010-263-080		CAP, ELECT 100-10V
C290	87-010-546-080		CAP, ELECT 0.33-50V
C301	87-010-928-090		CAP,E 4700-25 SMG
C302	87-010-248-080		CAP, ELECT 220-10V
C303	87-018-134-080		CAPACITOR,TC-U 0.01-16
C304	87-010-221-080		CAP, ELECT 470-10V
C307	87-010-263-080		CAP, ELECT 100-10V
C308	87-018-134-080		CAPACITOR,TC-U 0.01-16
C309	87-010-248-080		CAP, ELECT 220-10V
C312	87-010-263-080		CAP, ELECT 100-10V <76UST,78LHS,78U1S>
C801	87-018-102-080		CAP,TC-U 6.8P-50 SL <EXCEPT 76UST,68LHS>
C802	87-018-134-080		CAPACITOR,TC-U 0.01-16
C803	87-018-106-080		CAP,TC-U 15P-50 SL
C805	87-018-101-080		CAP,TC-U 5.6P-50 SL<EXCEPT 78LHS>
C806	87-018-102-080		CAP,TC-U 6.8P-50 SL
C807	87-018-127-080		CAP, CER 470P-50V<EXCEPT 78LHS>
C808	87-018-109-080		CAP, CER 22P-50V
C809	87-018-105-080		CAP,TC-U 12P-50 SL
C810	87-A10-142-010		CAP,CER 33P-50 K CH
C811	87-018-109-080		CAP, CER 22P-50V<EXCEPT 78LHS>
C812	87-018-098-080		CAP,TC-U 3.3P-50 SL
C813	87-018-119-080		CAP, CER 100P-50V
C821	87-018-209-080		CAP, CER 0.1-50V <EXCEPT 76UST,68LHS>
C827	87-010-405-080		CAP, ELECT 10-50V
C829	87-010-263-080		CAP, ELECT 100-10V
C832	87-010-405-080		CAP, ELECT 10-50V
C834	87-010-400-080		CAP, ELECT 0.47-50V
C835	87-010-401-080		CAP, ELECT 1-50V
C836	87-010-401-080		CAP, ELECT 1-50V
C836	87-010-401-080		CAP, ELECT 1-50V
C838	87-010-405-080		CAP, ELECT 10-50V
C842	87-010-546-080		CAP, ELECT 0.33-50V
C843	87-010-546-080		CAP, ELECT 0.33-50V
C846	87-010-384-080		CAP, ELECT 100-25V
C848	87-010-403-080		CAP, ELECT 3.3-50V
C849	87-A10-159-010		CAP,CER 39P-50 K SL
C850	87-A10-158-010		CAP,CER 33P-50 K SL
C849	87-018-105-080		CAP,TC-U 12P-50 SL
C850	87-018-106-080		CAP,TC-U 15P-50 SL
C850	87-018-106-080		CAP,TC-U 15P-50 SL
C857	87-010-404-080		CAP, ELECT 4.7-50V
C858	87-010-112-080		CAP, ELECT 100-16V
C860	87-010-248-080		CAP, ELECT 220-10V
C880	87-010-401-080		CAP, ELECT 1-50V
C882	87-010-401-080		CAP, ELECT 1-50V
C884	87-018-106-080		CAP,TC-U 15P-50 SL
C901	87-018-205-080		CAP, CERA-SOL 0.022
C902	87-018-205-080		CAP, CERA-SOL 0.022
C903	87-018-205-080		CAP, CERA-SOL 0.022
C904	87-018-205-080		CAP, CERA-SOL 0.022<78U1S>

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
D801	87-A40-226-080		VARI-CAP,SVC251SPA
D802	87-A40-226-080		VARI-CAP,SVC251SPA
D805	87-A40-456-080		VARI-CAP,3KV1590
CF801	87-008-261-080		FLTR SFE 10.7 MA5-A
CN101	87-099-194-010		CONN,6P 6216V
CN201	87-099-017-010		CONN, 15P 6216 V
CN206	87-099-198-010		CONN,10P 6216 V
CN801	88-CH6-612-010		CONN ASSY,6P TA-ME
L1	87-007-342-010		COIL,OSC 85K BIAS
L801	87-A50-110-010		COIL,FM BPF EX
L802	87-006-244-010		COIL,RF FM 3-1/2T,L4
L803	87-006-246-010		COIL,RF FM 3-1/2T,L4
L804	87-CHH-605-010		COIL,FM OSC EX
L805	87-005-847-080		COIL,2.2UH(CECS)
L806	86-ZA1-604-010		IFT,FM IFT 7-6.2
L808	87-CHH-601-010		COIL,BAR-ANT,U
L810	87-CHH-609-010		COIL,OSC MW H(COI)<78LHS>
L810	87-CHH-608-010		COIL,OSC MW U(COI)<EXCEPT 78LHS>
L814	87-A90-245-010		FLTR,CFAZH-450 (TOK) <EXCEPT 78LHS>
L814	87-A90-052-010		FLTR,CFMT-450A(TOK) <EXCEPT 76UST,78U1S>
L815	87-A50-015-010		COIL,FM DET(TOK)
L901	87-A50-079-080		COIL,22UH (CECS)
L902	87-A50-063-080		INDUCTOR,0.47UH <EXCEPT 76UST,68LHS>
S1	87-A90-089-010		SW,SL 1-6-2
S201	87-036-336-010		SW,SL 2-4-3 V
SFR802	87-A90-500-080		SFR,10K
TC802	87-011-221-080		CAP, TRIMMER 30P <EXCEPT 68LHS,26UST,16UST>
TC802	87-011-220-080		TRIMMER CAP 20P VTC <68LHS,26UST,16UST>
X801	87-A70-044-010		VIB, CER CMU2-456A15
X802	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309

FRONT C.B

C602	87-010-263-080		CAP, ELECT 100-10V
C604	87-010-405-080		CAP, ELECT 10-50V
C605	87-018-209-080		CAP, CER 0.1-50V
C607	87-018-059-080		CAP TC-S 22P-50CH
C608	87-018-209-080		CAP, CER 0.1-50V
C609	87-018-209-080		CAP, CER 0.1-50V
C610	87-018-117-080		CAP,TC-U 68P-50 SL
C611	87-018-113-080		CAP, CER 33P-50V
C612	87-018-195-080		CAP, CER 1200P-16V
C613	87-010-264-080		CAP,E 100-10 5L<EXCEPT 16UST>
C615	87-018-113-080		CAP, CER 33P-50V
C617	87-018-195-080		CAP, CER 1200P-16V
CN601	87-099-032-010		CONN,15P 6216 H
CN602	87-099-199-010		CONN,6P 6216 H
CN603	87-099-199-010		CONN,6P 6216 H
LCD601	88-CH6-635-010		LCD DISPLAY
S601	87-A90-696-080		SW,TACT TS2103-03-430
S602	87-A90-696-080		SW,TACT TS2103-03-430
S602	87-A90-696-080		SW,TACT TS2103-03-430
S603	87-A90-696-080		SW,TACT TS2103-03-430
S604	87-A90-696-080		SW,TACT TS2103-03-430
S605	87-A90-696-080		SW,TACT TS2103-03-430
S606	87-A90-696-080		SW,TACT TS2103-03-430
S607	87-A90-696-080		SW,TACT TS2103-03-430
S608	87-A90-696-080		SW,TACT TS2103-03-430
S609	87-A90-696-080		SW,TACT TS2103-03-430
X601	87-030-252-010		VIB, X'TAL 32.768K 5PPM
X602	87-030-328-080		VIB,CERA KBR4.0M SA02

VR C.B

J251	87-A60-569-010		JACK,HTJ-035-18
VR251	87-A90-754-010		VR,RTRY M768Z50K

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
QX C.B			
C201	87-010-401-080		CAP, ELECT 0.1-50V <EXCEPT 76UST,68LHS>
C201	87-010-406-080		CAP, ELECT 1-50<76UST,68LHS>
C202	87-010-401-080		CAP, ELECT 0.1-50V <EXCEPT 76UST,68LHS>
C202	87-010-406-080		CAP, ELECT 1-50<76UST,68LHS>
C211	87-010-406-080		CAP, ELECT 1-50
C205	87-010-545-080		CAP, ELECT 0.22-50V
C206	87-010-545-080		CAP, ELECT 0.22-50V
C207	87-010-408-080		CAP, ELECT 47-50V<EXCEPT 16UST>
C208	87-010-400-080		CAP, ELECT 2.2-50V<EXCEPT 16UST>
C211	87-010-406-080		CAP, ELECT 1-50 <EXCEPT 76UST,16UST>
C211	87-010-408-080		CAP, ELECT 47-50V<76UST>
C212	87-010-406-080		CAP, ELECT 1-50 <EXCEPT 76UST,16UST>
C212	87-010-221-080		CAP, ELECT 470-10V<76UST>
C213	87-018-130-080		CAP,TC-U 820P-50 B
C214	87-018-130-080		CAP,TC-U 820P-50 B
C217	87-018-133-080		CAPACITOR,CER 4700P-16V
C218	87-018-133-080		CAPACITOR,CER 4700P-16V
C219	87-010-248-080		CAP, ELECT 220-10V <EXCEPT 76UST,68LHS>
C219	87-010-374-080		CAP, ELECT 47-10V<76UST,68LHS>
C220	87-010-405-080		CAP, ELECT 10-50V<EXCEPT 16UST>
C221	87-010-406-080		CAP, ELECT 1-50V
C223	87-018-134-080		CAPACITOR,TC-U 0.01-16 <EXCEPT 16UST>
C224	87-010-405-080		CAP, ELECT 10-50V
C225	87-010-405-080		CAP, ELECT 10-50V

CD MAIN C.B

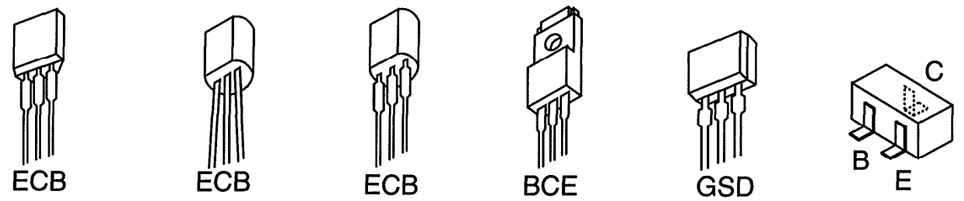
C401	87-010-403-080		CAP, ELECT 3.3-50V
C403	87-010-263-080		CAP, ELECT 100-10V
C404	87-010-248-080		CAP, ELECT 220-10V
C406	87-010-374-080		CAP, ELECT 47-10V
C407	87-018-131-080		CAP, CER 1000P-50V
C409	87-010-248-080		CAP, ELECT 220-10V
C410	87-010-263-080		CAP, ELECT 100-10V
C412	87-010-401-080		CAP, ELECT 1-50V
C414	87-010-405-080		CAP, ELECT 10-50V
C416	87-010-545-080		CAP, ELECT 0.22-50V
C417	87-018-125-080		CAP, CER 330P-50V
C425	87-018-129-080		CAP, CER 680P-50V <EXCEPT 76UST,68LHS>
C429	87-018-133-080		CAPACITOR,CER 4700P-16V
C430	87-018-123-080		CAP, CER 220P-50V
C431	87-010-545-080		CAP, ELECT 0.22-50V<76UST,68LHS>
C432	87-010-374-080		CAP, ELECT 47-10V
C433	87-010-401-080		CAP, ELECT 1-50V
C436	87-010-374-080		CAP, ELECT 47-10V
C437	87-010-404-080		CAP, ELECT 4.7-50V
C438	87-018-209-080		CAP, CER 0.1-50V
C439	87-018-131-080		CAP, CER 1000P-50V
C440	87-018-141-080		CAP, CERA-SOL SS 3.3P CH
C442	87-018-150-080		CAP,TC-U 18P-50 CH
C445	87-018-209-080		CAP, CER 0.1-50V
C446	87-018-209-080		CAP, CER 0.1-50V
C447	87-018-209-080		CAP, CER 0.1-50V
C448	87-018-111-080		CAP, CERA-SOL SS 27P
C450	87-018-127-080		CAP, CER 470P-50V
C457	87-018-113-080		CAP, CER 33P-50V<76UST,68LHS>
C457	87-018-106-080		CAP,TC-U 15P-50 SL <EXCEPT 76UST,68LHS>
C458	87-018-113-080		CAP, CER 33P-50V<76UST,68LHS>
C458	87-018-106-080		CAP,TC-U 15P-50 SL <EXCEPT 76UST,68LHS>
C459	87-010-263-080		CAP, ELECT 100-10V
C460	87-018-209-080		CAP, CER 0.1-50V

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C461	87-018-209-080		CAP, CER 0.1-50V
C462	87-010-375-080		CAP,E 330-10
C463	87-018-134-080		CAP, CER 0.01-25 <EXCEPT 76UST,68LHS>
C465	87-010-404-080		CAP, ELECT 4.7-50V
C466	87-018-209-080		CAP, CER 0.1-50V
C467	87-010-263-080		CAP, ELECT 100-10V
C469	87-018-121-080		CAP, CER 150P-50V
C476	87-010-236-080		CAP,E 1000-10 SME <EXCEPT 76UST,68LHS>
C478	87-010-263-080		CAP, ELECT 100-10V
C480	87-010-221-080		CAP, ELECT 470-10V
C481	87-010-405-080		CAP, ELECT 10-50V
C482	87-010-405-080		CAP, ELECT 10-50V
C483	87-018-123-080		CAP, CER 220P-50V
C484	87-018-123-080		CAP, CER 220P-50V
C489	87-018-209-080		CAP, CER 0.1-50V
C490	87-018-209-080		CAP, CER 0.1-50V
C491	87-018-134-080		CAPACITOR,TC-U 0.01-16
C492	87-010-221-080		CAP, ELECT 470-10V
C495	87-018-119-080		CAP, CER 100P-50V
C496	87-018-119-080		CAP, CER 100P-50V
C497	87-018-119-080		CAP, CER 100P-50V
C498	87-018-119-080		CAP, CER 100P-50V
C499	87-018-119-080		CAP, CER 100P-50V
CN403	88-CH6-614-010		CONN ASSY,6P CD-ME

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
L401	87-003-102-080		COIL, 10UH
X401	87-030-221-080		CERALOCK 16.93MHZ
LED C.B			
LED701	88-CD6-630-010		LED,934ID RED <EXCEPT 66UST,26UST,16UST>
LED702	88-CD6-630-010		LED,934ID RED
LED702	88-CD6-630-010		LED,934ID RED
LED703	88-CD6-630-010		LED,934ID RED
LED704	88-CD6-631-010		LED,934GD GRN<EXCEPT 16UST>
LED705	88-CD6-630-010		LED,934ID RED
PT/BATT C.B			
⚠PR901	87-A90-092-080		PROTECTOR,2.5A 491<76UST,78U1S>
MOTOR-1 C.B			
M2	9X-262-513-210		SLED MOTOR ASSY
PIN3	91-564-722-110		CONNECTOR 6P
SW1	91-572-085-110		LEAF SW

- コネクタについては、初回発注の扱いとはせず、受注後に業者へ発注し、供給致します。
- Regarding connectors, they are not stocked as they are not the initial order items.
  The connectors are available after they are supplied from connector manufacturers upon the order is received.

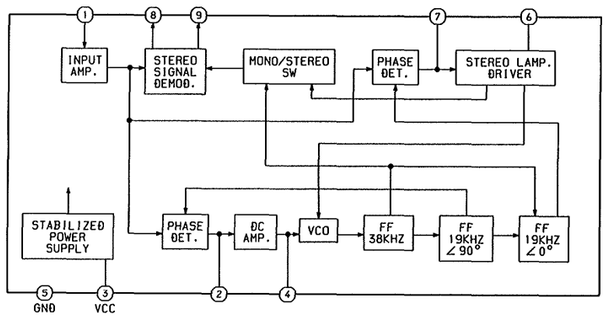
TRANSISTOR ILLUSTRATION



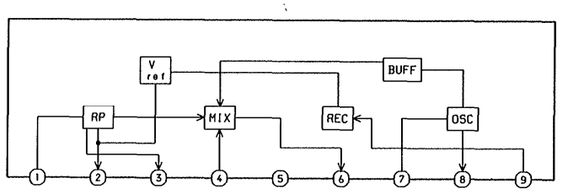
ECB	ECB	ECB	BCE	GSD	
2SA933 2SC1740 DTA114ES DTC114ES DTC114TS DTC124XS DTC143ES	2SA1318 2SC535 2SC1923 2SC2001	2SA1296 2SC1815	2SB1655	2SK439	DTA114YS

IC BLOCK DIAGRAM-1

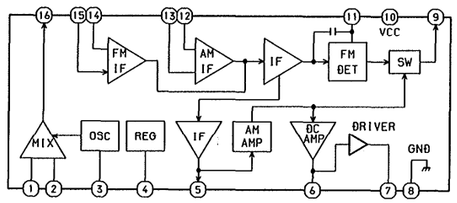
IC, AN7420



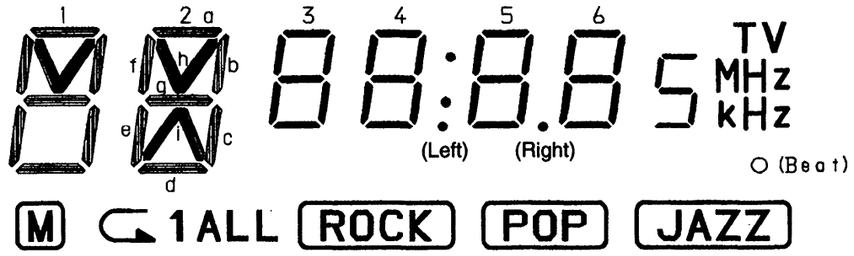
IC, LA1185



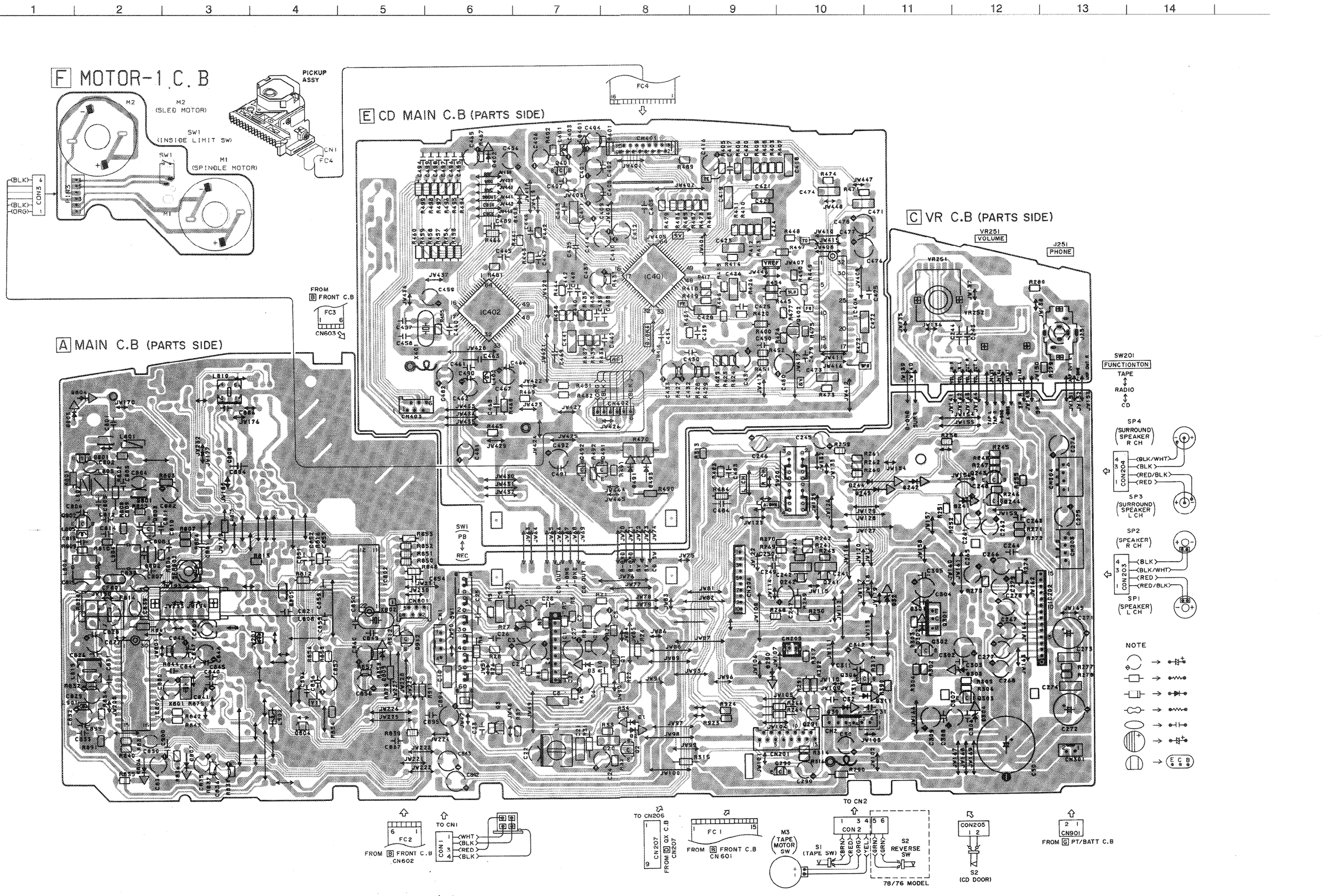
IC, TA7640P



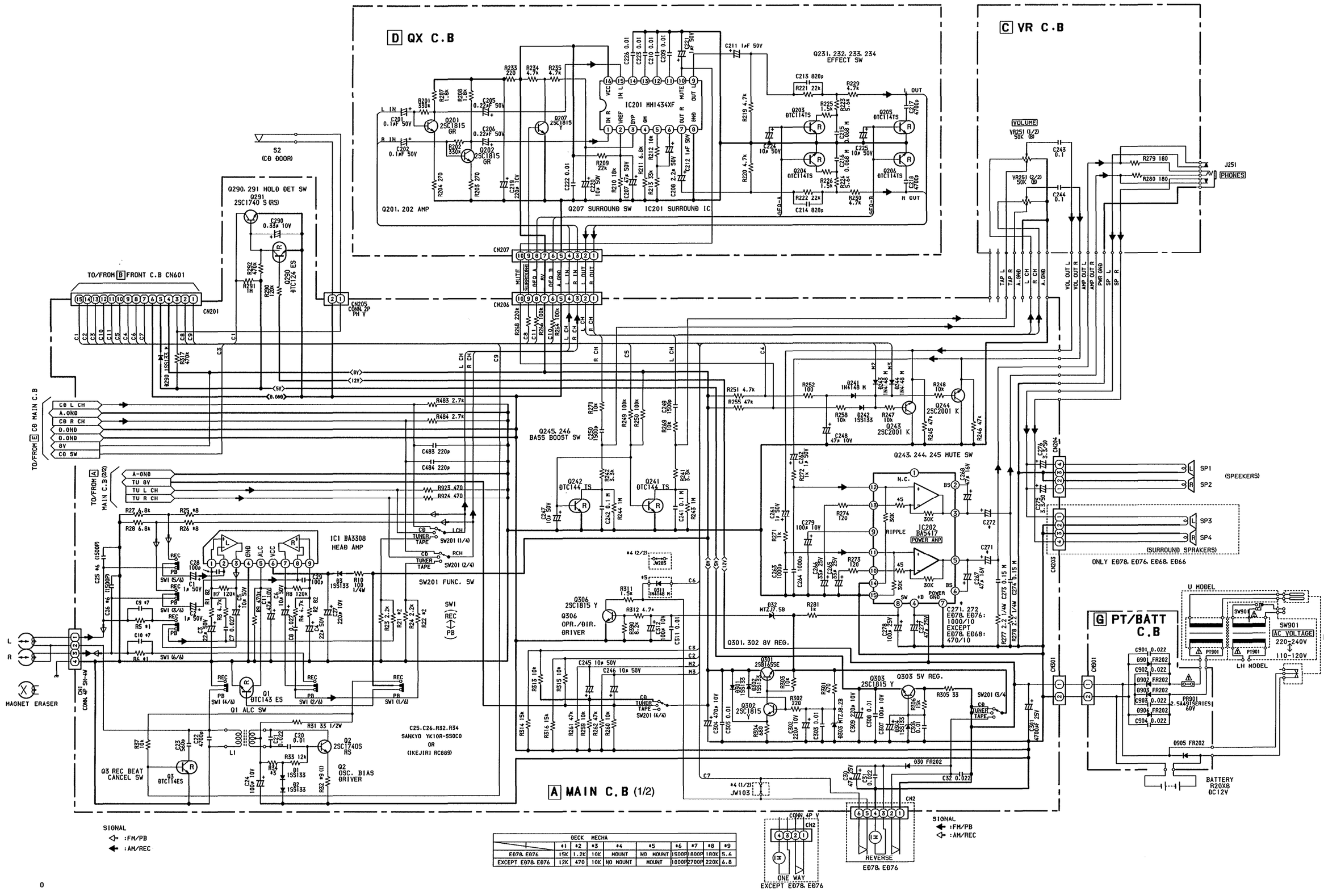
LCD DISPLAY



NO.	COM1	COM2	COM3
1			COM3
2		COM2	
3	COM1		
4	1a	1h	1f
5	1b	1g	1e
6	1c	1c	M
7	2a	2h	2f
8	2b	2g	2e
9	2c	2l	2d
10	3f	3e	
11	3a	3g	3d
12	3b	3c	1
13	4f	4e	ALL
14	4a	4g	4d
15	4b	4c	ROCK
16	:	(Left)	POP
17	5f	5e	JAZZ
18	5a	5g	5d
19	5b	5c	(Right)
20	6f	6e	(Beat)
21	6a	6g	6d
22	6b	6c	5
23	TV	MHz	kHz

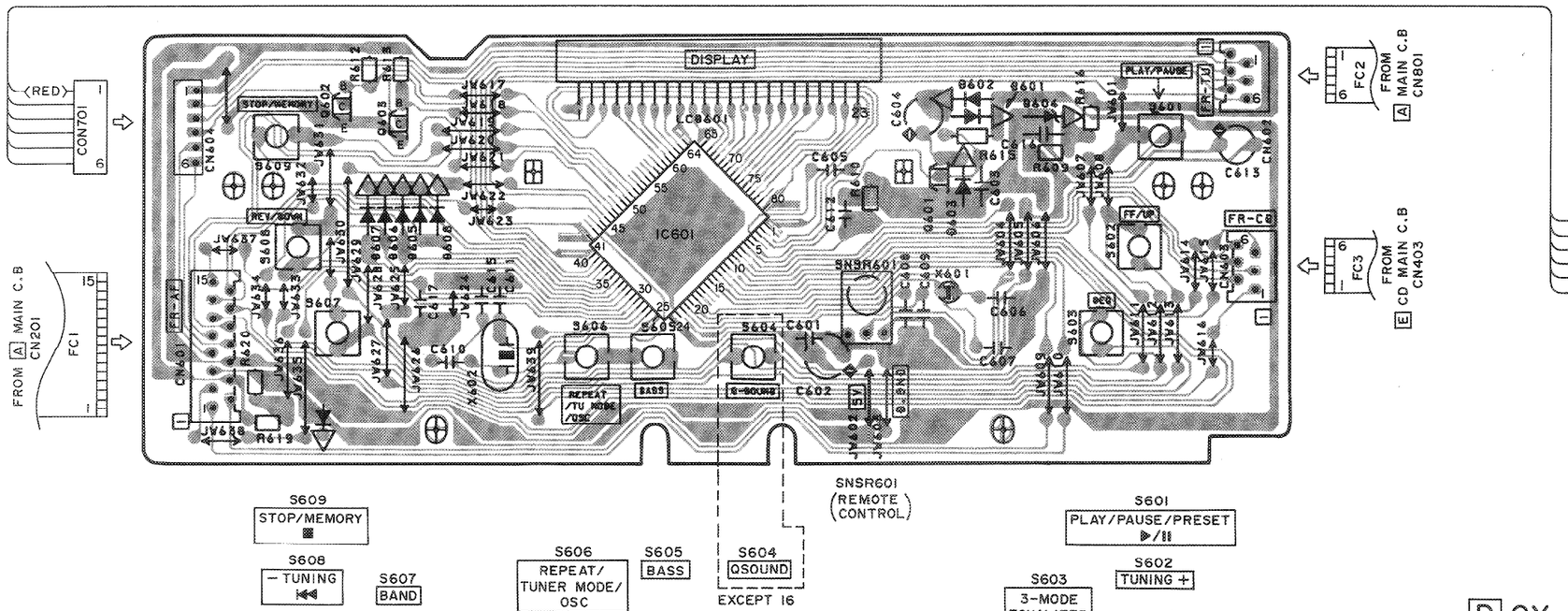

F MOTOR-1 C.B
M2
(SLED MOTOR)
SW1
(INSIDE LIMIT SW)
M1
(SPINDLE MOTOR)
PICKUP ASSY
CN1
FC4
(BLK)
(BLK)
(ORG)
CON3
E CD MAIN C.B (PARTS SIDE)
FC4
FROM B FRONT C.B
FC3
CN603
A MAIN C.B (PARTS SIDE)
C VR C.B (PARTS SIDE)
VR251
VOLUME
J251
PHONE
SW201
FUNCTIONTON
TAPE
RADIO
CD
SP4
(SURROUND SPEAKER R CH)
CON204
(BLK/WHT)
(BLK)
(RED/BLK)
(RED)
SP3
(SURROUND SPEAKER L CH)
SP2
(SPEAKER R CH)
CON203
(BLK)
(BLK/WHT)
(RED)
(RED/BLK)
SP1
(SPEAKER L CH)
NOTE
SWI
PB
REC
FC2
FROM B FRONT C.B
CN602
TO CN1
CON1
(WHT)
(BLK)
(RED)
(BLK)
TO CN206
CN207
FROM D QX C.B
CN207
FC1
FROM B FRONT C.B
CN601
M3
TAPE MOTOR SW
S1
(TAPE SW)
TO CN2
CON 2
(BRN)
(RED)
(ORG)
(YEL)
(GRN)
(GRN)
S2
REVERSE SW
78/76 MODEL
CON205
S2
(CD DOOR)
CN901
FROM G PT/BATT C.B

SCHEMATIC DIAGRAM-1 (MAIN)

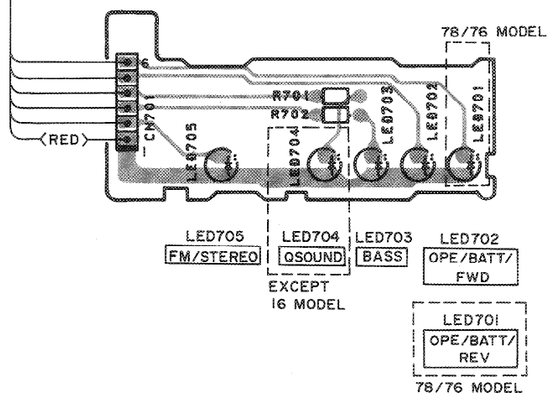


DECK MECHA	#1	#2	#3	#4	#5	#6	#7	#8	#9
E078, E076	15K	1.2K	10K	MOUNT	NO MOUNT	1500P	1800P	180K	5.6
EXCEPT E078, E076	12K	470	10K	NO MOUNT	MOUNT	1000P	2700P	220K	6.8

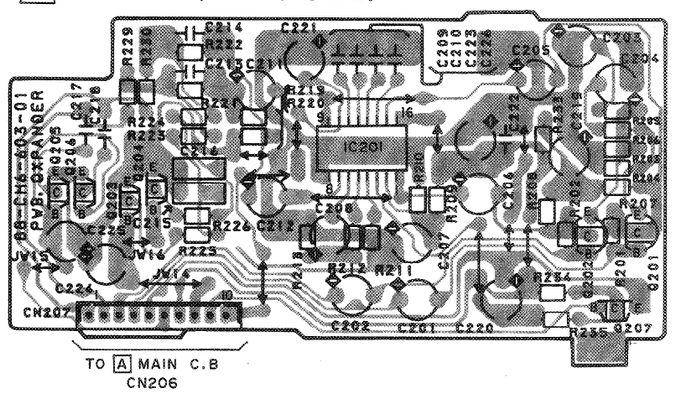
B FRONT C.B (PARTS SIDE)



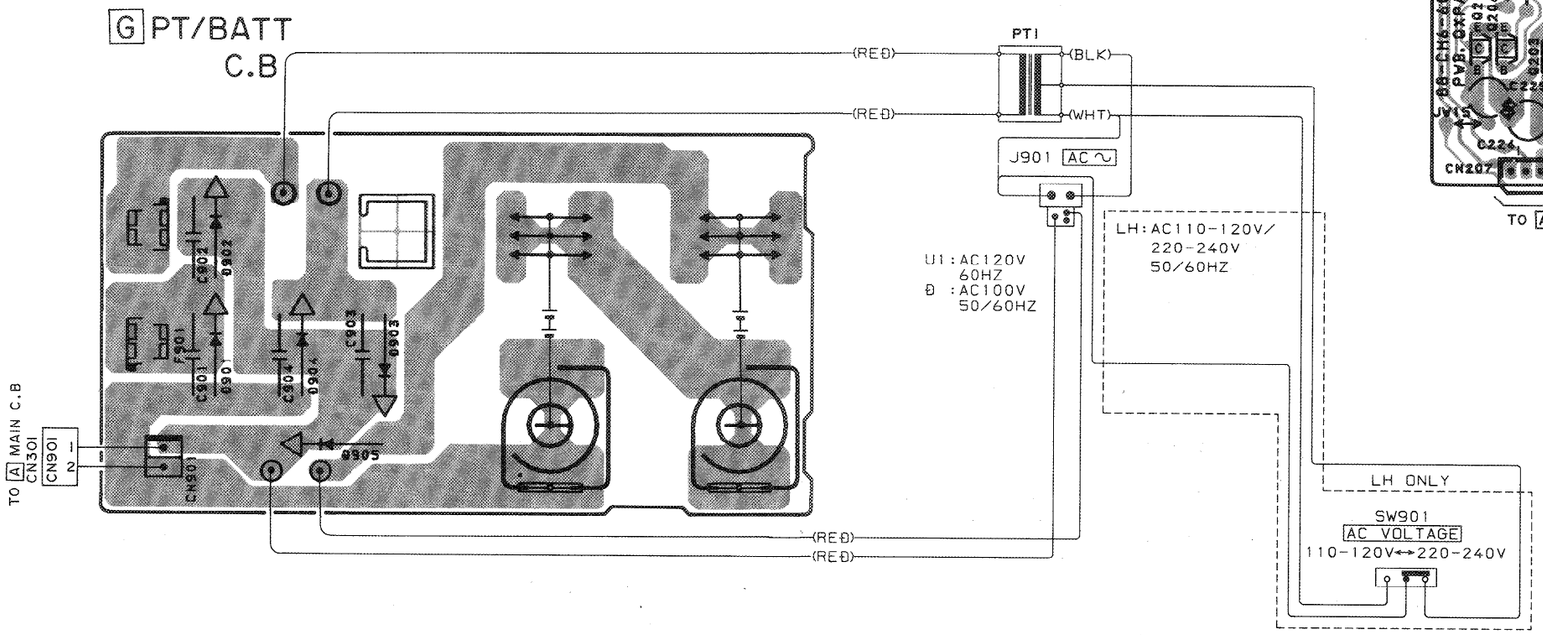
E LED C.B (PARTS SIDE)

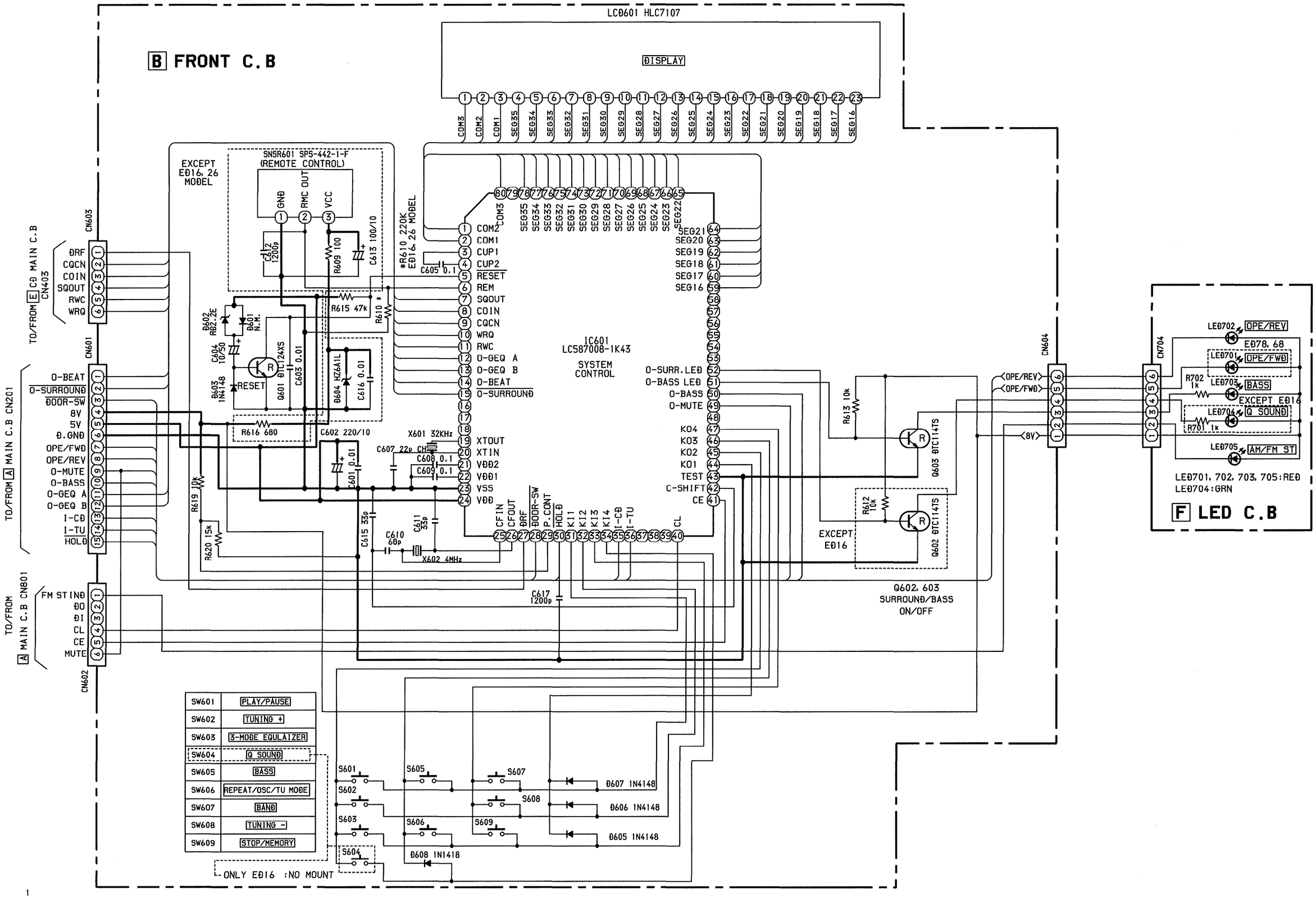


D QX C.B (PARTS SIDE)



G PT/BATT C.B




B FRONT C.B
LCD601 HLC7107
DISPLAY
COM3 COM2 COM1 SEG35 SEG34 SEG33 SEG32 SEG31 SEG30 SEG29 SEG28 SEG27 SEG26 SEG25 SEG24 SEG23 SEG22 SEG21 SEG20 SEG19 SEG18 SEG17 SEG16
EXCEPT ED16, 26 MODEL
SNSR601 SPS-442-1-F (REMOTE CONTROL)
GND RMC OUT VCC
C612 1200p
R609 100
C613 100/10
*R610 220K ED16, 26 MODEL
C605 0.1
R615 47k
R610 *
D602 RD2.2E
D601 N.M.
C604 10/50
C603 0.01
Q601 DTC124XS
D603 1N4148
D604 HZ6A1L
C616 0.01
RESET
R616 680
C602 220/10
X601 32KHz
C607 22p CH
C608 0.1
C609 0.1
C601 0.01
R619 10k
R620 15k
C615 33p
C611 33p
C610 68p
X602 4MHz
C617 1200p
IC601
LC587008-1K43
SYSTEM CONTROL
COM2 COM1 CUP1 CUP2 RESET REM SQOUT COIN CQCN WRQ RWC O-GEQ A O-GEQ B O-BEAT O-SURROUND
SEG21 SEG20 SEG19 SEG18 SEG17 SEG16
O-SURR.LED O-BASS LED O-BASS O-MUTE
KO4 KO3 KO2 KO1 TEST C-SHIFT CE
XTOUT XTIN VDD2 VDD1 VSS VDD
CFIN CFOUT DRF DOOR-SW P.CONT HOLD K11 K12 K13 K14 I-CD I-TU CL
TO/FROM E CD MAIN C.B CN403
CN603
DRF CQCN COIN SQOUT RWC WRQ
CN601
O-BEAT O-SURROUND DOOR-SW 8V 5V D.GND OPE/FWD OPE/REV O-MUTE O-BASS O-GEQ A O-GEQ B I-CD I-TU HOLD
TO/FROM A MAIN C.B CN201
TO/FROM A MAIN C.B CN801
CN602
FM STIN DO DI CL CE MUTE
R613 10k
Q603 DTC114TS
R612 10k
Q602 DTC114TS
EXCEPT ED16
CN604
OPE/REV OPE/FWD 8V
CN704
LED702 OPE/REV
ED78, 68
LED701 OPE/FWD
R702 1k
LED703 BASS
EXCEPT ED16
LED704 Q SOUND
R701 1k
LED705 AM/FM ST
LED701, 702, 703, 705:RED
LED704:GRN
F LED C.B
Q602, 603 SURROUND/BASS ON/OFF
SW601 PLAY/PAUSE
SW602 TUNING +
SW603 3-MODE EQULAIZER
SW604 Q SOUND
SW605 BASS
SW606 REPEAT/OSC/TU MODE
SW607 BAND
SW608 TUNING -
SW609 STOP/MEMORY
S601 S602 S603 S604 S605 S606 S607 S608 S609
D607 1N4148
D606 1N4148
D605 1N4148
D608 1N1418
-ONLY ED16 :NO MOUNT

IC DESCRIPTION-1

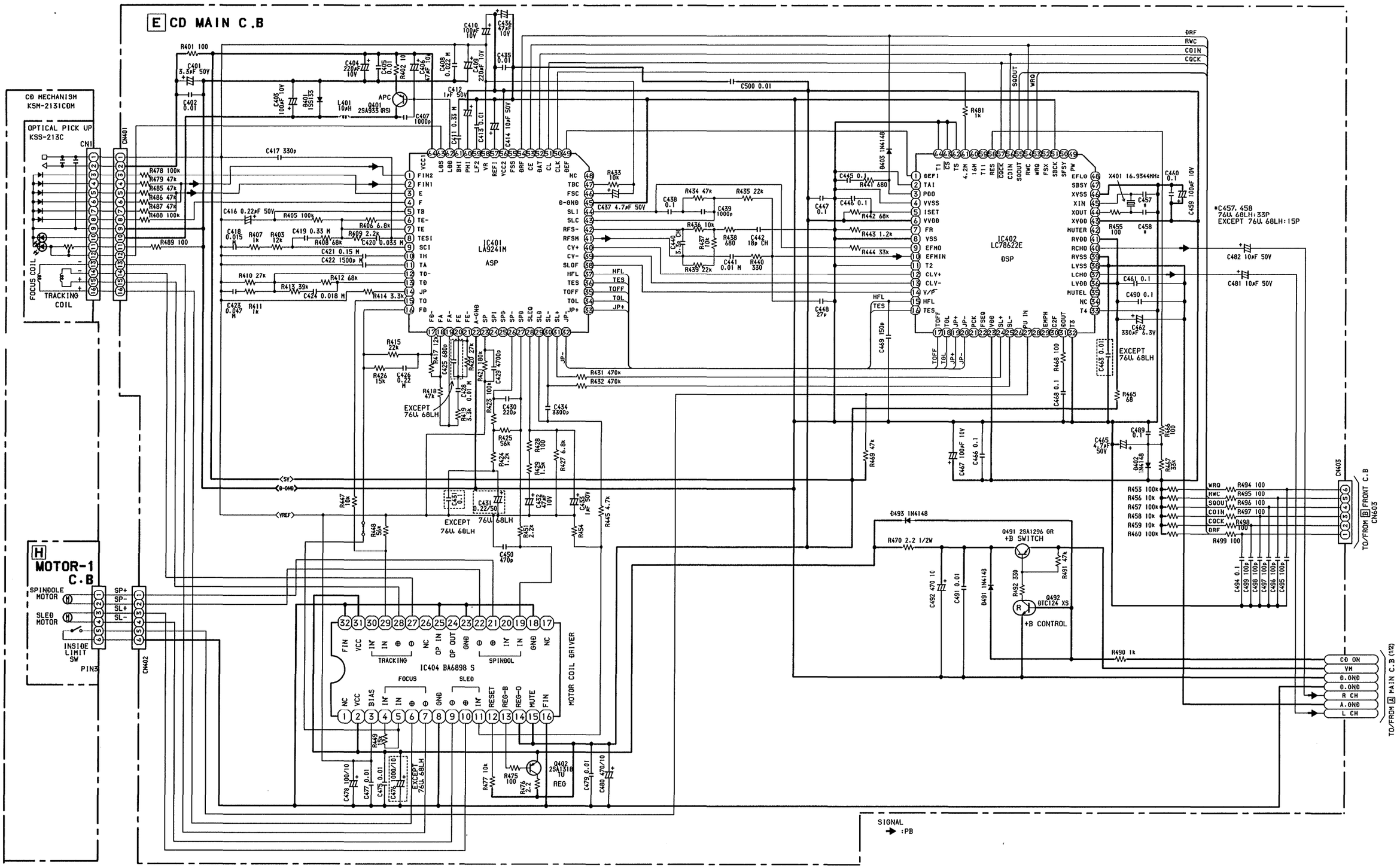
IC, LC587008-1K43

Pin No.	Pin Name	I/O	Description
1	COM2	O	COM2 output.
2	COM1	O	COM1 output.
3, 4	CUP1, CUP2	O	External capacitor is connected to this pin. 1/3 bias.
5	$\overline{\text{RES}}$	I	External reset circuit is connected to this pin.
6	REM	I	Remote control signal input pin.
7	SQ OUT	I	SUB Q code data input.
8	COIN	O	DSP command output.
9	CQCK	O	DSP command/SUB code clock output.
10	WRQ	I	SUB Q data read request.
11	RWC	O	DSP command /SUB Q data read end.
12, 13	O-GEQ A, B	O	Combination with LCD display.
14	O-BEAT	O	BEAT switch control.
15	$\overline{\text{O-SURR}}$	O	Surround switch control.
16-18, 30, 37	NC	—	Not used.
19, 20	XT OUT/IN	O/I	External 32.768 kHz X'TAL is connected to this pin.
21, 22	VDD2, VDD1	—	Connected GND through capacitor.
23	VSS	—	Connected GND.
24	VDD	—	Connected to 5V.
25, 26	CF IN/OUT	I/O	Connected to external 4 MHz ceramic filter.
27	DRF	I	Focus OK: H.
28	$\overline{\text{I-DOOR SW}}$	I	CD DOOR OPEN: H, CLOCK: L.
29	P.CONT	I	"H" input while machine is in operation. "L" while the main power is OFF.
31-34	K1-K4	I	Key matrix input.
35	I-CD	I	"H" input during CD function.
36	I-TU	I	"H" input during TU function.
38	DO	I	LC72131 control.
39	DI	O	
40	CL	O	
41	CE	O	
42	O-C.SHIFT	O	
43	TST	—	Connected to Vss.
44-47	K01-K04	O	Key matrix output.
48, 53-58, 79	NC	—	Not used.
49	O-MUTE	O	MUTE switch control.
50	O-BASS	O	BASS switch control.
51	O-BASS LED	O	Bus LED drive.
52	O-SURR LED	O	Surround LED drive.
59-78	Seg16-Seg35	O	Connected to LCD segment.
80	COM3	O	COM3 output.

IC, LC72131

Pin No.	Pin Name	I/O	Description
1	XI	—	Crystal oscillator (6.2 MHz) is connected to this pin.
2	NC	—	Not used.
3	CE	I	The terminal which enables this IC. Active H.
4	DI	I	Data from the CPU (LC866432V) is input when this key is operated. Active H.
5	CLK	I	Clock input to data DI.
6	DO	O	Digital data output to the CPU (LC866432V)
7	TM-BASE	O	Reference clock signal input (8 MHz).
8	$\overline{\text{MONO}}$/ST BEAT	O	H is output when the MONO/ST BEAT switch is operated.
9	$\overline{\text{FM/SW1}}$	O	H or L is output as follows. 2 BAND: AM H, FM L 3 BAND: LW H, MW H, FM L 4 BAND: LW H, SW1 H, SW2 H, FM L
10	$\overline{\text{MW/SW2}}$	O	H or L is output as follows. 2 BAND: AM H, FM L 3 BAND: LW H, MW L, FM L 4 BAND: LW H, SW1 H, SW2 L, FM L
11	$\overline{\text{IF-MUTE}}$	O	This pin controls the internal counter.
12	IFIN	I	General purpose counter input.
13	$\overline{\text{TUNE}}$	I	L is input when tuned to a station.
14	NC	—	Not used.
15	AM-I	I	AM local oscillator frequency signal is input.
16	FM-I	I	FM local oscillator frequency signal is input.
17	VDD	—	Power supply input to IC (+5 V).
18	PD	O	PLL charge-pump output.
19	AIN	I	N-channel MOS transistor for PLL active low-pass filter.
20	AOUT	O	N-channel MOS transistor for PLL active low-pass filter.
21	VSS	—	GND.
22	XO	—	Crystal oscillator (6.2 MHz) is connected to this pin.

SCHEMATIC DIAGRAM-3 (CD)



IC DESCRIPTION-2

IC, LA9241M

Pin No.	Pin Name	I/O	Description
1	FIN2	I	Pin to which external pickup photo diode is connected. RF signal is created by adding with the FIN1 pin signal. FE signal is created by subtracting from the FIN1 pin signal.
2	FIN1	I	Pin to which external pickup photo diode is connected.
3	E	I	Pin to which external pickup photo diode is connected. TE signal is created by subtracting from the F pin signal.
4	F	I	Pin to which external pickup photo diode is connected.
5	TB	I	DC component of the TE signal is input.
6	TE–	I	Pin to which external resistor setting the TE signal gain is connected between the TE pin.
7	TE	O	TE signal output pin.
8	TESI	I	TES "Track Error Sense" comparator input pin. TE signal is passed through a band-pass filter then input.
9	SCI	I	Shock detection signal input pin.
10	TH	I	Tracking gain time constant setting pin.
11	TA	O	TA amplifier output pin.
12	TD–	I	Pin to which external tracking phase compensation constants are connected between the TD and VR pins.
13	TD	I	Tracking phase compensation setting pin.
14	JP	I	Tracking jump signal (kick pulse) amplitude setting pin.
15	TO	O	Tracking control signal output pin.
16	FD	O	Focusing control signal output pin.
17	FD–	I	Pin to which external focusing phase compensation constants are connected between the FD and FA pins.
18	FA	I	Pin to which external focusing phase compensation constants are connected between the FD– and FA– pins.
19	FA–	I	Pin to which external focusing phase compensation constants are connected between the FA and FE pins.
20	FE	O	FE signal output pin.
21	FE–	I	Pin to which external FE signal gain setting resistor is connected between the FE pin.
22	AGND	—	Analog signal GND.
23	NC	—	No connection.
24	SP	O	Single ended output of the CV+ and CV– pin input signal.
25	SPG	I	Pin to which external spindle gain setting resistor in 12 cm mode is connected.
26	SP–	I	Pin to which external spindle phase compensation constants are connected together with SPD pin.
27	SPD	O	Spindle control signal output pin.
28	SLEQ	I	Pin to which external sled phase compensation constants are connected.
29	SLD	O	Sled control signal output pin.
30, 31	SL–, SL+	I	Sled advance signal input pin from microprocessor.
32, 33	JP–, JP+	I	Tracking jump signal input pin from DSP.
34	TGL	I	Tracking gain control signal input from DSP. Low gain when TGL = H.
35	TOFF	I	Tracking off control signal input pin from DSP. Off when TOFF = H.

Pin No.	Pin Name	I/O	Description
36	TES	O	Pin from which TES signal is output to DSP.
37	HFL	O	"High Frequency Level" is used to judge whether the main beam position is on top of bit or on top of mirror.
38	SLOF	I	Sled servo off control input pin.
39, 40	CV–, CV+	I	CLV error signal input pin from DSP.
41	RFSM	O	RF output pin.
42	RFS–	I	RF gain setting and EFM signal 3T compensation constant setting pin together with RFSM pin.
43	SLC	O	"Slice Level Control" is the output pin which controls the RF signal data slice level by DSP.
44	SLI	I	Input pin which control the data slice level by the DSP.
45	DGND	—	Digital system GND.
46	FSC	O	Output pin to which external focus search smoothing capacitor is connected.
47	TBC	I	"Tracking Balance Control" EF balance variable range setting pin.
48	NC	—	No connection.
49	DEF	O	Disc defect detector output pin.
50	CLK	I	Reference clock input pin. 4.23 MHz of the DSP is input.
51	CL	I	Microprocessor command clock input pin.
52	DAT	I	Microprocessor command data input pin.
53	CE	I	Microprocessor command chip enable input pin.
54	DRF	O	"Detect RF" RF level detector output.
55	FSS	I	"Focus Search Select" focus search mode (± search/+ search) select pin.
56	VCC2	—	Servo system and digital system Vcc pin.
57	REFI	—	Pin to which external bypass capacitor for reference voltage is connected.
58	VR	O	Reference voltage output pin.
59	LF2	I	Disc defect detector time constant setting pin.
60	PH1	I	Pin to which external capacitor for RF signal peak holding is connected.
61	BH1	I	Pin to which external capacitor for RF signal bottom holding is connected.
62	LDD	O	APC circuit output pin.
63	LDS	I	APC circuit input pin.
64	VCC1	—	RF system Vcc pin.

A MAIN C.B (2/2)

L815 ĐC BALANCE ĂĐJ
L814 AM IF ĂĐJ
L815 COIL, FM ĐET
L814 FLTR CFAZH-450
IC801 LA1836 (Z)
ĐECOĐER
IC802 LC72131Đ (Z)
PLL
IFT
L806 FM IFT 7-6.2
CF801 SFE10.7 MA5A
FM MIXER
Q802 2SC535 (B/C)
FM RF AMP
Q801 2SK439 E
FM ANT
FM BAND-SW
Q804 ĐTA114 YS
FM OSC AMP
Q803 2SC1923 (O)
FM OSC
L810 AM OSC
REG
AMLO
Đ805 KV1590
TC802 EĐ78, 68U:30P EXCEPT 78, 68U:20P
L808 AM BARANT
EXCEPT EĐ76U, EĐ68LH
L802, 803 FM TRACKING ĂĐJ
L801 COIL,FM BPF EX
L802 COIL,RF FM 3-1/2T L4
L803 COIL,RF FM 3-1/2T L4
L804 COIL,FM OSC EX
L804 FM VT ĂĐJ
L810 AM VT ĂĐJ
L808, TC802 AM TRACKING ĂĐJ
SFR802 FM AUTO STOP LEVEL ĂĐJ
X801 VIB CER CMU2-455A15
X802 4.5MHz XTL
Q912 2SC1815 GR SW
Đ809 MTZJ5.6A
EXCEPT 76U, 68LH
L902 0.47μH
76U, 68LH
CN801
MUTE
CE
CL
ĐI
ĐO
FM ST INĐ
A.GNĐ
TU 8V
L CH
R CH
TO/FROM B FRONT C.B CN602
TO/FROM A MAIN C.B (1/2)

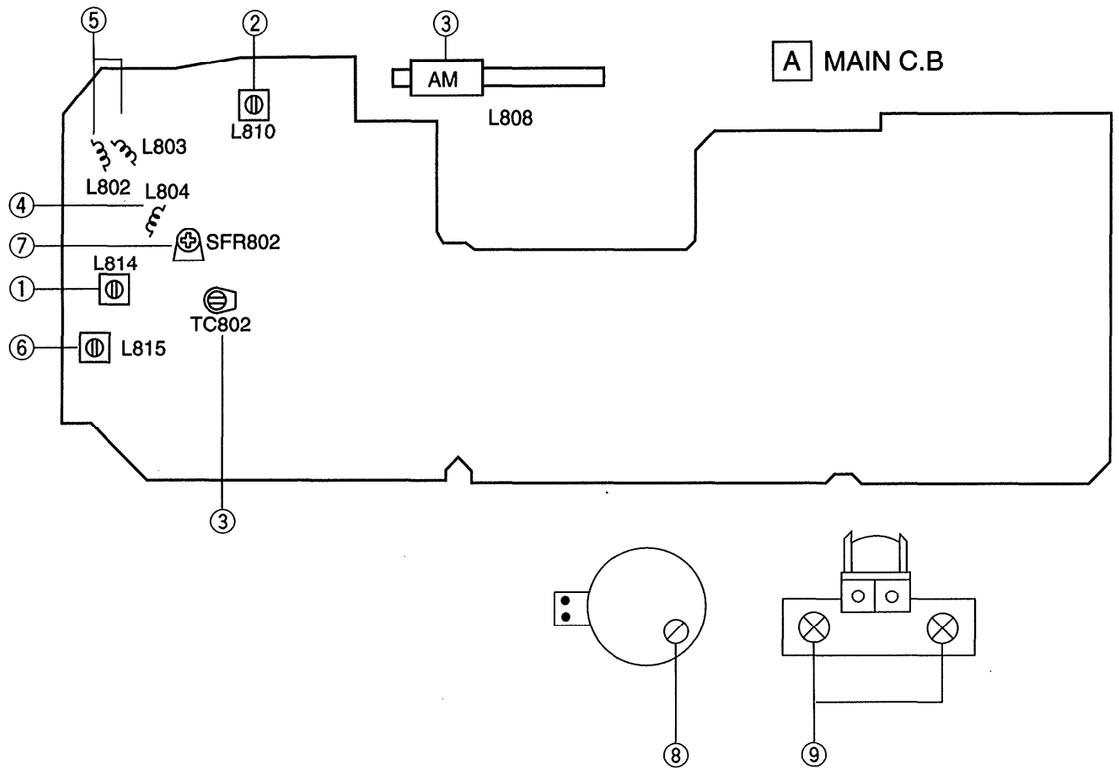
IC DESCRIPTION-3
IC, LC78622E

Pin No.	Pin Name	I/O	Description	
1	DEFI	I	Defect sense signal (DEF) input pin. (Connect to 0V when not used).	
2	TAI	I	For PLL.	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.
3	PDO	O		Phase comparator output pin to control external VCO.
4	VVSS	—		GND pin for built-in VCO. Be sure to connect to 0V.
5	ISET	I		Pin to which external resistor adjusting the PD0 output current.
6	VVDD	—		Power supply pin for built-in VCO.
7	FR	I		Pin for VCO frequency range adjustment.
8	VSS	—	Digital system GND. Be sure to connect to 0V.	
9	EFMO	O	For slice level control.	EFM signal output pin.
10	EFMIN	I		EFM signal input pin.
11	TEST2	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.	
12, 13	CLV+, CLK–	O	Disc motor control output. Three level output is possible using command.	
14	V/$\overline{P}$	O	Rough servo or phase control automatic selection monitoring output pin. Rough servo at H. Phase servo at L.	
15	HFL	I	Track detect signal input pin. Schmidt input.	
16	TES	I	Tracking error signal input pin. Schmidt input.	
17	TOFF	O	Tracking OFF output pin.	
18	TGL	O	Tracking gain selection output pin. Gain boost at L.	
19, 20	JP+, JP–	O	Track jump control signal output pin. Three level output is possible using command.	
21	PCK	O	EFM data playback clock monitoring pin 4.3218 MHz when phase is locked in.	
22	FSEQ	O	Sync signal detection output pin. H when the sync signal which is detected from EFM signal and thesync signal which is internally generated agree.	
23	VDD	—	Digital system power supply pin.	
24-28	CONT1-CONT5	I/O	General purpose input/output pin 1 to 5.	The pin is controlled by the serial data command from microprocessor. When the pin is not used, set the pin to the input terminal and connect to 0V, or alternately set the pin to output terminal and leave the pin open.
29	EMPH	O	De-emphasis monitor output pin. De-emphasis disc is being played back at H.	
30	C2F	O	C2 flag output pin.	
31	DOUT	O	DIGITAL OUT output pin. (EIAJ format).	
32, 33	TEST3, TEST4	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.	
34	N.C.	—	Not used. Set the pin to open.	
35	MUTEL	O	L-channel 1-bit DAC.	L-channel mute output pin.
36	LVDD	—		L-channel power supply pin.
37	LCHO	O		L-channel output pin.
38	LVSS	—		L-channel GND. Be sure to connect to 0V.
39	RVSS	—	R-channel 1-bit DAC.	R-channel GND. Be sure to connect to 0V.
40	RCHO	O		R-channel output pin.
41	RVDD	—		R-channel power supply pin.
42	MUTER	O		R-channel mute output pin.

Pin No.	Pin Name	I/O	Description
43	XVDD	—	Crystal oscillator power supply pin.
44	XOUT	O	Pin to which external 16.9344 MHz crystal oscillator is connected.
45	XIN	I	
46	XVSS	—	Crystal oscillator GND pin. Be sure to connect to 0V.
47	SBSY	O	Subcode block sync signal output pin.
48	EFLG	O	C1, C2, single and dual correction monitoring pin.
49	PW	O	Subcode P, Q, R, S, T, U and W output pin.
50	SFSY	O	Subcode frame sync signal output pin. Falls down when subcode enters standby.
51	SBCK	I	Subcode read clock input pin. Schmidt input. (Be sure to connected to 0V when not in use.)
52	FSX	O	Pin outputting the 7.35 kHz sync signal which is generated by dividing frequency of crystal oscillator.
53	WRQ	O	Subcode Q output standby output pin.
54	RWC	I	Read/write control input pin. Schmidt input.
55	SQOUT	O	Subcode Q output pin.
56	COIN	I	Command input pin from microprocessor.
57	$\overline{CQCK}$	I	Command input read clock or subcode read input clock from SQOUT pin
58	$\overline{RES}$	I	LC78622 reset input pin. Set this pin to L once when the main power is turned on.
59	TST11	O	Test signal output pin. Use this pin as open (normally L output).
60	16M	O	16.9344 MHz output pin.
61	4.2M	O	4.2336 MHz output pin.
62	TEST5	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.
63	$\overline{CS}$	I	Chip select signal input pin with built-in pull-down resistor. Be sure to connect to 0V while it is not controlling.
64	TEST1	I	Test signal input pin without built-in pull-down resistor. Be sure to connect to 0V.

Note: The same potential must be applied to the respective power supply terminals. (VDD, VVDD, LVDD, RVDD, XVDD)

ELECTRICAL ADJUSTMENT



< TUNER SECTION >

1. AM IF Adjustment
   L814 ..... 450kHz
   Settings : • Test point : TP2
   Method : Set to AM 1710kHz and check that the test point is 2160kHz ± 45Hz .

2. AM VT Adjustment
   Settings : • Test point : TP1
   • Adjustment location : L810
   Method : Set to AM 1710kHz and adjust L810 so that test point is 6.0 ± 0.05V .

3. AM Tracking Adjustment
   L808 ..... 600kHz
   TC802 ..... 1400kHz

4. FM VT Adjustment
   Settings : • Test point : TP1
   • Adjustment location : L804
   Method : Set to FM 108.0MHz and adjust L804 so that test point is 5.8 ± 0.05V.

5. FM Tracking Adjustment
   L802, 803 ..... 98MHz

6. DC Balance / Mono Distortion Adjustment
   Settings : • Test point : TP2, TP3
   • Adjustment location : L815
   • Input level : 54dB
   Method : Set to FM 98.0MHz and adjust L815 so that the voltage between TP2 and TP3 becomes 0V ± 0.04V.

7. FM Auto Stop Level Adjustment
   Settings : • Adjustment location : SFR802
   Method : Set to FM 98.0MHz and adjust SFR802machine performs Auto Stop when 30 ± 2dB is input.

< DECK SECTION >

8. Tape Speed Adjustment
   Settings : • Test tape : TTA–100
   • Test point : TP4, 5, 6
   • Adjustment location : SFR of deck motor
   Method : Play back the test tape and adjust SFR1 so that the output frequency is 3000Hz.

9. Azimuth Adjustment
   Settings : • Test tape : TTA–320
   • Test point : TP4, 5, 6
   • Adjustment location : Head azimuth adjustment screw
   Method : Play back the test tape and adjust so that the output is maximum.

PRACTICAL SERVICE FIGURE

<TUNER SECTION>

<FM SECTION>

IHF Sensitivity :	Less than 15dB
(THD 3%)	[at 87.5 / 98MHz]
	Less than 20dB
	[at 108.0MHz]
Signal to noise ratio :	Less than 65dB
	[at 98.0MHz]
Distortion :	Less than 2% (Input 54dB)
	Less than 5% (Input 120dB)
	[at 98.0MHz]
Stereo separation :	More than 20dB
	[at 98.0MHz]
Intermediate frequency :	10.7MHz

<AM SECTION>

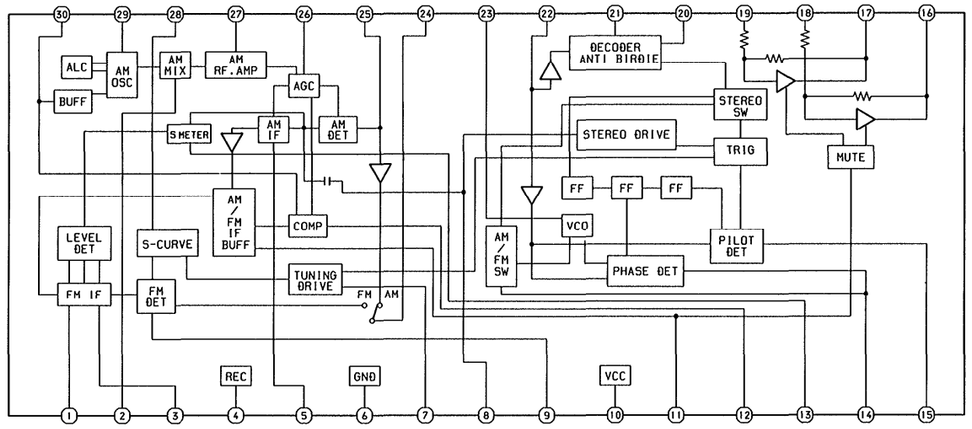
Sensitivity :	Less than 50dB
(S/N 10 dB)	[at 600kHz]
	Less than 58dB
	[at 1000 / 1400kHz]
Signal to noise ratio :	More than 30dB
	[at 1000kHz]
Distortion :	Less than 5% (Input 74dB)
	Less than 10% (Input 120dB)
	[at 1000kHz]
Intermediate frequency :	450kHz

<DECK SECTION>

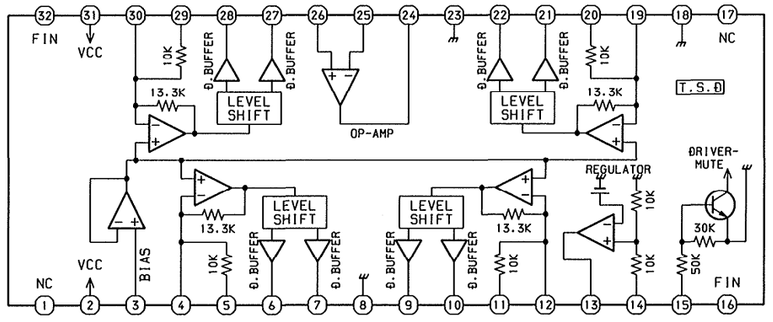
Distortion :	Less than 3% (PB)
	Less than 3% (REC/PB)
S/N ratio :	More than 35dB (PB,AC,DC)
	More than 30dB (REC/PB,AC,DC)
Erasing ratio :	More than 45dB
	(DC,AC,TONE CENTER)
Wow & flutter :	Less than 0.4% (R.M.S)
Take-up torque :	20 ~ 60g-cm (FWD/REV)
F.F & REW torque :	55 ~ 120g-cm
Test tape :	TTA–100
	TTA–320

IC BLOCK DIAGRAM-2

IC, LA1836

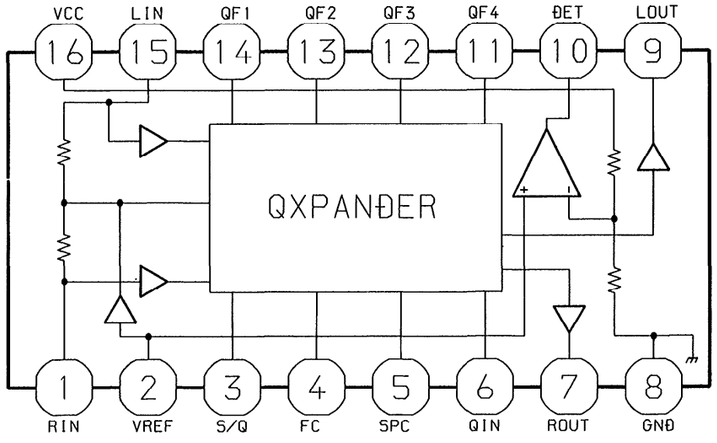


IC, BA6898F



T.S.D:Thermal shift down circuit
D.BUFFER:Drive Buffer

IC, MM1434XF

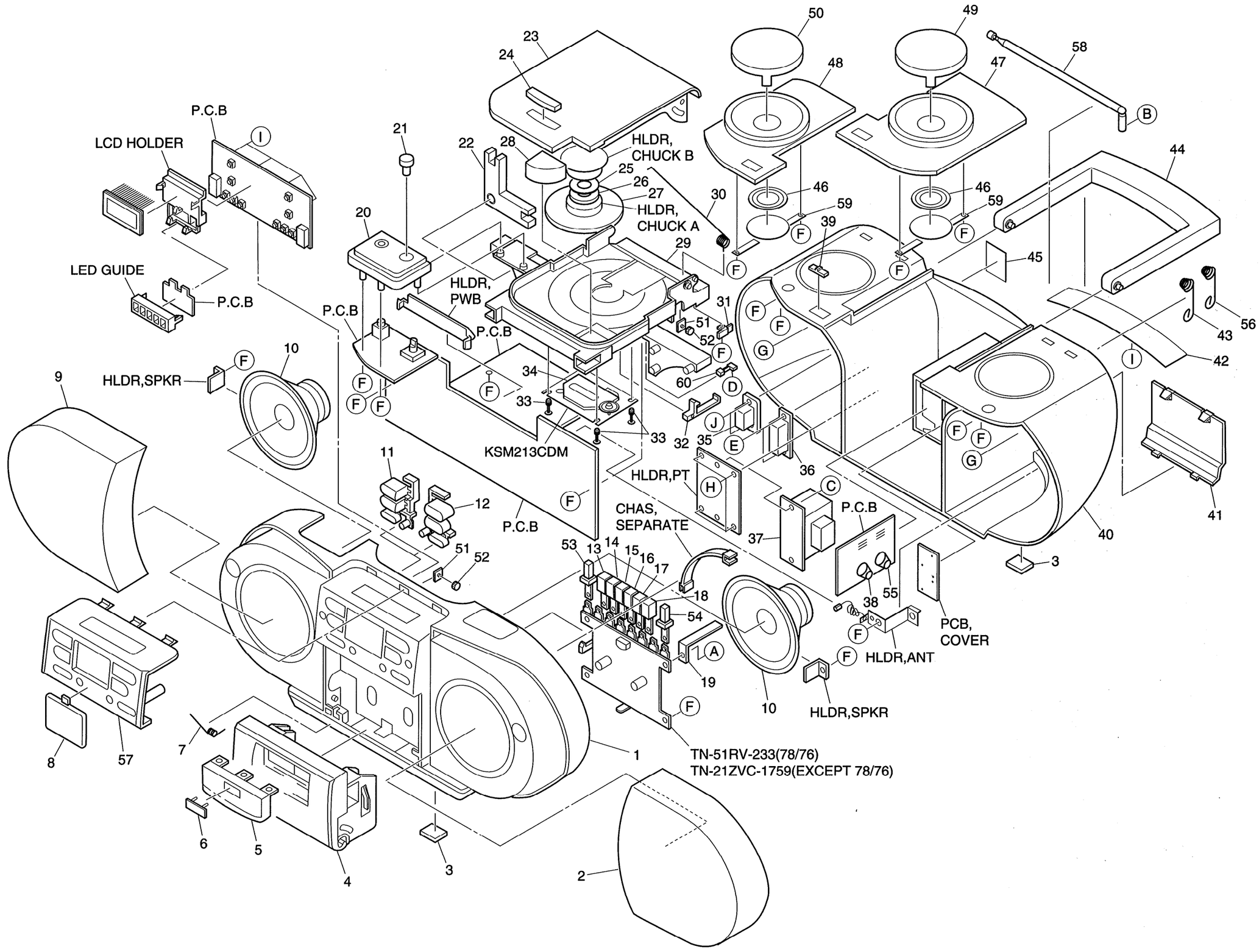


MECHANICAL PARTS LIST 1/1

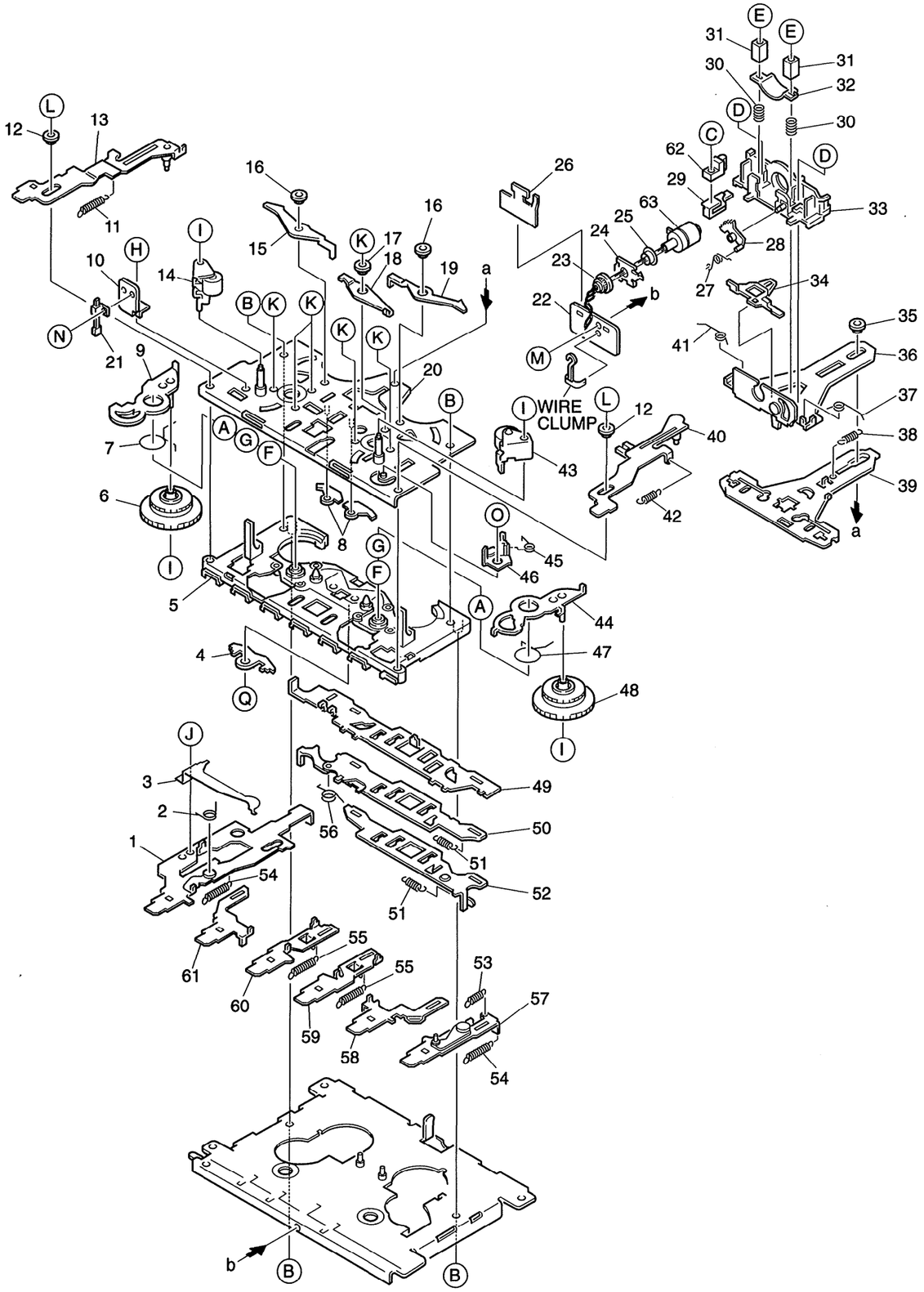
DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	88-CH6-001-010		CABI,FR1
2	88-CH6-016-010		GRILLE,FR R
3	86-CT4-218-010		CUSHION,FOOT/PORON<EXCEPT 16US>
4	88-CH6-006-010		BOX,CASS1 <66UST,68LHS,68U1S,26UST>
4	88-CHT-002-010		BOX,CASS1 T<76UST,78LHS,78U1S>
4	88-CH7-002-010		BOX,CASS1 X<16US>
5	88-CH6-007-010		WINDOW,CASS1
6	S1-023-360-101		BADGE AIWA
7	88-CH6-211-010		SPR-T,CASS
8	88-CH6-012-010		WINDOW,LCD <66UST,68LHS,68U1S,26UST>
8	88-CHT-003-010		WINDOW,LCD T<76UST,78LHS,78U1S>
8	88-CH7-004-010		WINDOW,LCD X<16US>
9	88-CH6-015-010		GRILLE,FR L
10	88-CH6-630-010		SPKR, 8OHM<EXCEPT 78LHS,68LHS>
10	88-CH6-631-010		SPKR,MAYLOR 8OHM<78LHS,68LHS>
11	88-CH6-034-010		BTN,STOP5
12	88-CH6-033-010		BTN,PLAY
13	88-CH6-028-010		KEY,DIR<76UST,78LHS,78U1S>
13	88-CH6-021-010		KEY,PAUSE 21 <EXCEPT 76UST,78LHS,78U1S>
14	88-CH6-022-010		KEY,STOP
15	88-CH6-023-010		KEY,FF<EXCEPT 16US>
16	88-CH6-024-010		KEY,REW
17	88-CH6-025-010		KEY,PLAY 21 <EXCEPT 76UST,78LHS,78U1S>
17	88-CH6-029-010		KEY,PLAY 51<76UST,78LHS,78U1S>
18	88-CH6-026-010		KEY,REC
19	88-CH6-212-010		SPR-P,REC 21 <EXCEPT 76UST,78LHS,78U1S>
19	88-CH6-213-010		SPR-P,REC 51<76UST,78LHS,78U1S>
20	88-CH6-013-010		CABI,VOL
21	88-CH6-032-010		KNOB,RTRY VOL
22	88-CH6-204-010		LEVER,FUNC
23	88-CH6-004-010		BOX,CD1<26UST>
23	88-CH7-001-010		BOX,CD1 X<16US>
23	88-CHG-001-010		BOX,CD2 GA<66UST>
23	88-CHG-003-010		BOX,CD2 GB<68LHS,68U1S>
23	88-CHT-001-010		BOX,CD2 TA<76UST>
23	88-CHT-006-010		BOX,CD2 TB<78LHS,78U1S>
24	88-CH6-005-010		WINDOW,CD1<26UST,16US>
24	88-CD6-005-010		WINDOW,CD2<EXCEPT 26UST,16US>
25	84-CD5-217-010		PLATE,MAGNET<EXCEPT 26UST>
26	87-036-368-010		MAGNET<EXCEPT 16US>
27	84-CD5-218-010		CUSH,CHUCK<EXCEPT 16US>
28	88-CH6-035-010		BTN,OPEN1<26UST,16US>
28	88-CD6-026-010		BTN,OPEN2<EXCEPT 26UST,16US>
29	88-CH6-003-010		CHAS,CD1<26UST,16US>
29	88-CD6-003-010		CHAS,CD2<EXCEPT 26UST,16US>
30	87-CD6-211-010		SPR-T,CD
31	88-CH6-209-010		HLDR,OIL-DMPR
32	88-CH6-205-010		LEVER,EJECT
33	88-CT6-206-010		CUSHION,CD<EXCEPT 16US>
34	88-CH6-019-010		PANEL,CD
⚠ 35	87-A60-178-010		JACK,AC E W/SW<78LHS,68LHS>
⚠ 35	87-A60-177-010		JACK,AC U W/SW <EXCEPT 78LHS,68LHS>
⚠ 36	87-A90-146-010		SW,SL 1-1-2<78LHS,68LHS>
⚠ 37	88-CH6-628-010		PT,H<78LHS,68LHS>
⚠ 37	88-CH6-626-010		PT,U<EXCEPT 78LHS,68LHS>
38	87-CD6-213-010		SPR-C,BATT (-)
39	88-CH6-031-010		KNOB,SL FUNC1<26UST,16US>
39	88-CD6-024-010		KNOB,SL FUNC2<EXCEPT 26UST,16US>
40	88-CH6-002-010		CABI,REAR1<26UST,16US>
40	88-CD6-002-010		CABI,REAR2<EXCEPT 26UST,16US>
41	88-CH6-014-010		LID,BATT
42	88-CH6-009-010		HANDL,GRIP
43	87-CD6-214-010		SPR-C,BATT LINK
44	88-CH6-008-010		HANDL,ARM1<26UST,16US>
44	88-CD6-008-010		HANDL,ARM2<EXCEPT 26UST,16US>
45	87-CD6-041-010		PLATE,AC
46	87-CD6-049-010		CAP, SPKR CER<76UST,66UST>
46	87-CD6-046-010		CAP, SPKR TOP <78LHS,78U1S,68LHS,68U1S>
47	88-CH6-017-010		CABI,TOP 1AR<76UST,66UST>
47	88-CH6-018-010		CABI,TOP 2AR <78LHS,78U1S,68LHS,68U1S>
48	88-CD6-014-010		CABI,TOP 1L<76UST,66UST>
48	88-CD6-016-010		CABI,TOP 2L <78LHS,78U1S,68LHS,68U1S>
49	88-CD6-019-010		GRILLE,TOP R<EXCEPT 26UST,16US>
50	88-CD6-018-010		GRILLE,TOP L<EXCEPT 26UST,16US>
51	84-CD5-216-010		BRACKET
52	84-CD5-215-010		GEAR
53	88-CH6-027-010		KEY,PAUSE 51<76UST,78LHS,78U1S>
54	88-CH6-030-010		KEY,MODE<76UST,78LHS,78U1S>
55	87-CD6-222-010		SPR-C,BATT (-) L
56	87-CD6-223-010		SPR-C,BATT LINK L <76UST,78LHS,78U1S>
56	87-CD6-223-010		SPR-C,BATT LINK L
57	88-CH7-003-010		PANEL,LCD21 X<16US>
57	87-CD6-042-010		PLATE,SL<66UST,68LHS,68U1S>
58	SA-N00-362-000		ANT
59	87-CL4-762-010		SPKR CER TWEETER <76UST,78U1S,66UST,68U1S>
59	88-CH6-629-010		SPKR, 4OHM<78LHS,68LHS>
60	S8-013-420-000		LEAF SW
A	87-571-032-410		VIT+2-3
B	87-254-096-410		U+3-10 CR
C	87-067-112-010		VFTT+3-6
D	87-741-035-410		UT2+2-6
E	87-651-074-410		VT1+2.6-8
F	87-741-095-410		UT2+3-8
G	87-744-104-410		UT2+3-30 CR
H	87-744-096-410		UT2+3-10 CR
I	87-724-095-410		QT2+3-8 CR
J	87-751-075-410		VT2+2.6-10

MECHANICAL EXPLODED VIEW 1/1



TAPE MECHANISM EXPLODED VIEW 1/2 (78/76 MODELS)

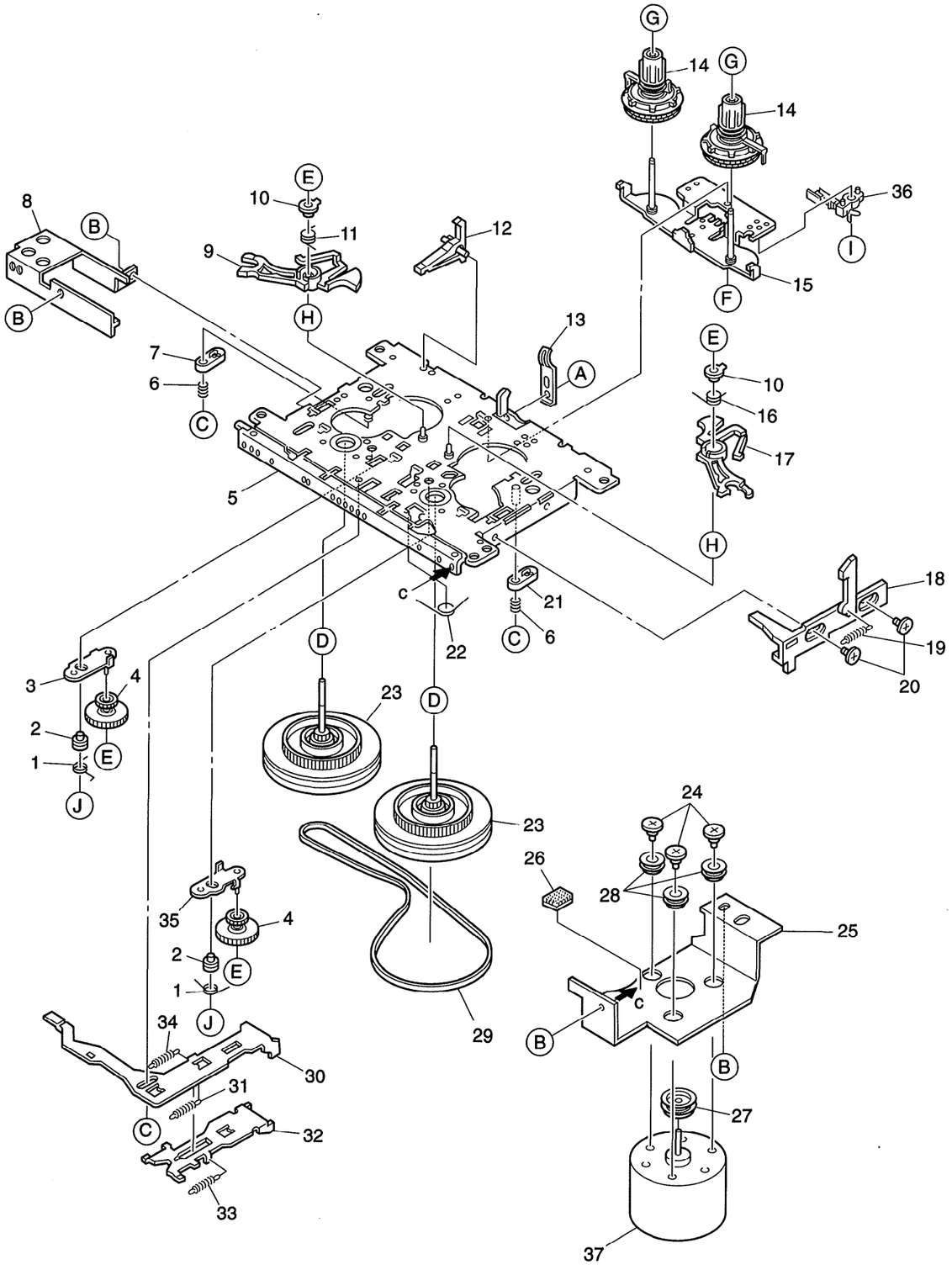


TAPE MECHANISM PARTS LIST 1/2 (78/76 MODELS)

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	S1-851-023-190		REC BUTTON LEVER ASSY
2	S1-851-020-620		E-LOCK ARM SPRING
3	S1-851-020-570		E-HEAD ARM
4	S1-851-020-410		FF CONTROL ARM
5	S1-851-025-040		BUTTON BASE ASSY
6	S1-851-060-020		T GEAR ARM(R)
7	S1-851-060-030		T GEAR ARM(R)SPR
8	S1-851-180-100		RC ARM
9	S1-851-063-020		T GEAR ARM ASSY (R)ASSY
10	S1-851-030-050		TURN OVER SW BRACKET
11	S1-851-020-680		MODE BUTTON SPRING
12	S1-851-020-600		LEVER COLLER
13	S1-851-023-240		MODE BUTTON LEVER ASSY
14	S1-851-105-020		PINCH ROLLER (R)ASSY
15	S1-851-180-060		AUTO CONTROL ARM(R)
16	S1-851-180-120		C ARM COLLAR SCREW
17	S1-851-020-580		PAUSE ARM COLLER
18	S1-851-180-080		PAUSE ARM
19	S1-851-180-050		AUTO CONTROL ARM(F)
20	S1-851-183-030		SUB CHASSIS ASSY
21	S6-401-010-990		LEAF SW MSW-1473NBK
22	S1-851-010-060		HW TERMINAL PLATE
23	S1-851-040-440		PINION GEAR
24	S1-851-040-180		HOLDER
25	S1-851-040-270		H HOLDER SPRING
26	S1-851-040-410		H SHIELD PLATE
27	S1-851-040-250		H TURN OVER SPRING
28	S1-851-040-200		H TURN OVER GEAR
29	S1-851-040-260		E HEAD HOLDER
30	S1-865-020-590		AZIMUTH SPRING
31	S1-851-040-360		SCREW HOLDER
32	S1-851-040-240		HEAD SPRING PLATE
33	S1-851-040-390		HEAD MOUNT
34	S1-851-040-210		HEAD SLIDE PLATE
35	S1-851-040-550		H.P.COLLAR SCREW
36	S1-851-040-140		HEAD PANEL
37	S1-851-040-280		PINCH ROLLER SPRING (F)
38	S1-851-040-090		R.C.PLATE SPRING
39	S1-851-040-150		R.C. PLATE
40	S1-851-023-230		PAUSE BUTTON LEVER ASSY
41	S1-851-040-290		PINCH ROLLER SPRING (R)
42	S1-800-110-230		PAUSE SPRING
43	S1-851-095-020		PINCH ROLLER (F)ASSY
44	S1-851-053-020		T GEAR ARM (F) ASSY
45	S1-851-030-040		TURN OVER SPRING
46	S1-851-030-030		TURN OVER ARM
47	S1-851-050-040		T GEAR ARM(F)SPR
48	S1-851-050-030		T GEAR ARM(F)
49	S1-851-020-560		SLIDE PLATE
50	S1-851-023-140		LOCK ACTUATOR ASSY
51	S1-851-020-670		SW ACTUATOR SPRING
52	S1-851-023-150		SW ACTUATOR ASSY
53	S1-851-020-270		PULL ARM SPRING
54	S1-851-020-700		PROGRAM BUTTON LEVER SPRING
55	S1-851-020-690		FF BUTTON LEVER SPRING
56	S1-851-020-760		LOCK RELEASE SPRING
57	S1-851-023-180		PROGRAM BUTTON LEVER ASSY
58	S1-851-020-5T0		STOP BUTTON LEVER
59	S1-851-020-080		FF BUTTON LEVER (F)
60	S1-851-020-090		FF BUTTON LEVER (R)
61	S1-851-020-6T0		PLAY BUTTON LEVER
62	S6-205-100-120		E HEAD EM-1636
63	S6-202-010-720		RP HEAD YK-10R-SSOSC
A	S9-999-000-130		P WASHER 1.75-4-0.3
B	S9-674-000-000		P TAP SCREW M2-6
C	S9-696-000-000		CAMERAS TAPING SCREW M1.7-4.5
D	S9-695-000-000		CAMERA S TAP SCREW M1.7-4
E	S9-999-200-360		SCREW M2-12 (+/-)
F	S9-786-000-000		P WASHER 2-3.5-0.3
G	S9-999-030-090		P WASHER 1.45-4-0.5
H	S9-999-130-060		CAMERA S TAP SCREW M1.7-2
I	S9-421-000-000		P WASHER 1.2-3-0.25
J	S9-C19-173-030		TSS 1.7X3
K	S9-C20-178-510		SCREW,TS 1.7-8.5
L	S9-185-000-000		C TAP SCREW M2-10
M	S9-999-200-120		TWO LOCK SCREW M2-4
N	S9-077-000-000		TAMS SCREW M2-4 (+)
O	S9-502-000-000		E RING S2.0
Q	S9-999-000-160		P WASHER 2.8-6-0.5

TAPE MECHANISM EXPLODED VIEW 2/2 (78/76 MODELS)

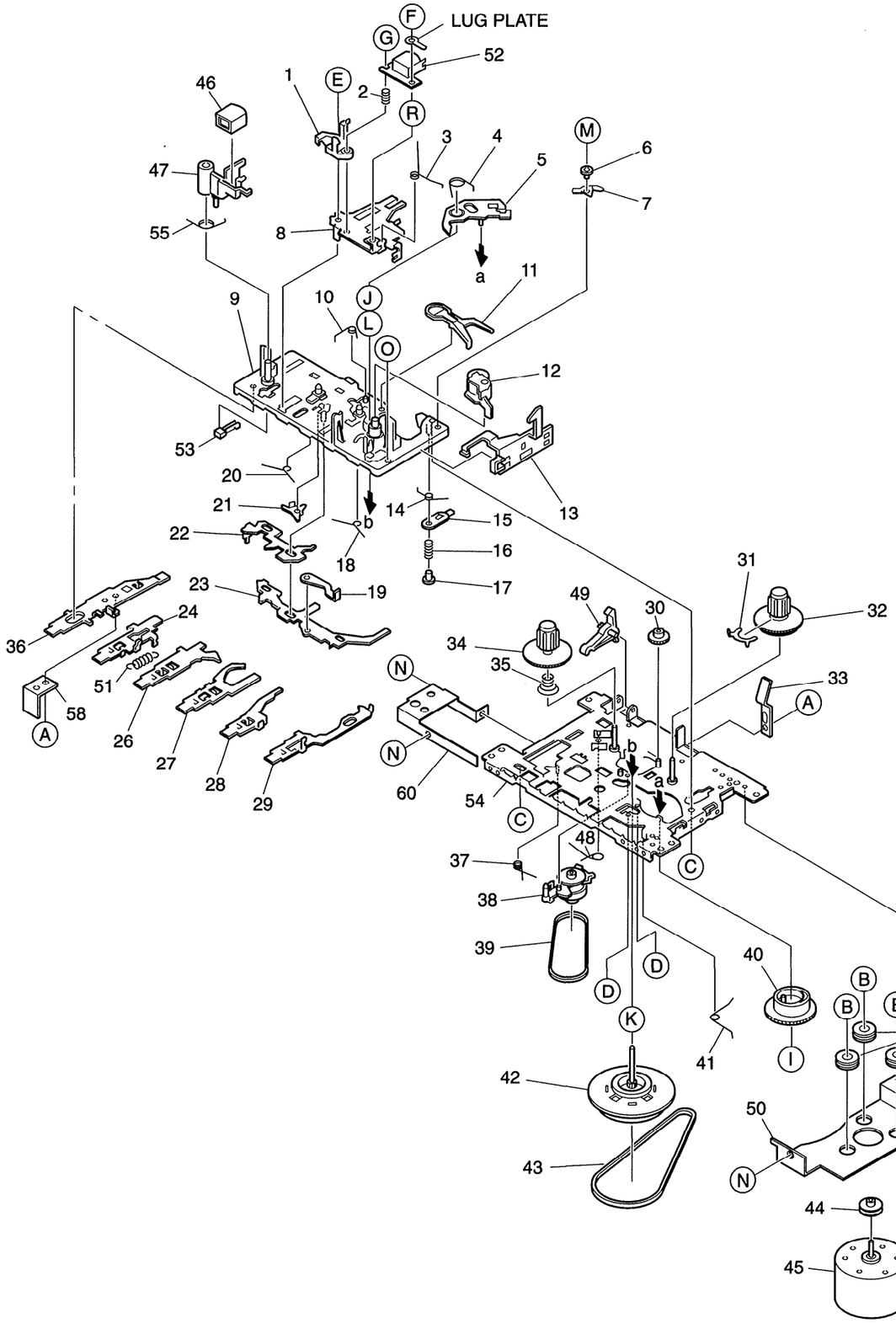


TAPE MECHANISM PARTS LIST 2/2 (78/76 MODELS)

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	S1-851-070-040		FF GEAR ARM SPR(F)
2	S1-851-070-050		FF GEAR ARM COLLAR
3	S1-851-083-010		FF GEAR ARM(R)ASSY
4	S1-851-070-030		FF GEAR
5	S1-851-013-050		CHASSIS ASSY
6	S1-821-010-160		PAUSE LEVER SPR
7	S1-851-010-080		PAUSE LEVER
8	S1-851-010-070		SIDE BRACKET
9	S1-851-200-020		AUTO LEVER(R)
10	S1-851-200-050		SPRING STOPPER
11	S1-851-200-030		AUTO LEVER SPRING
12	S1-851-010-090		RECORD SAFETY LEVER
13	S1-821-100-980		PACK SPRING PLATE
14	S1-851-115-010		REEL ASSY
15	S1-851-113-010		REEL PLATE ASSY
16	S1-851-200-040		AUTO LEVER SPRING
17	S1-851-200-010		AUTO LEVER(F)
18	S1-851-170-010		EJECT SLIDE LEVER
19	S1-851-170-020		EJECT SLIDE LEVER SPR
20	S1-821-120-230		P.K.COLLAR SCREW (A)
21	S1-821-010-150		PAUSE LEVER
22	S1-851-020-210		STOP BUTTON LEVER SPR
23	S1-851-125-050		FLYWHEEL ASSY
24	S1-821-120-020		M. COLLER SCREW
25	S1-921-120-540		MOTOR BRACKET
26	S1-800-100-220		ANTI-VIBRATION FELT
27	S1-851-140-150		MOTOR PULLEY
28	S1-820-130-060		MOTOR RUBBER
29	S1-851-140-170		MAIN BELT
30	S1-851-040-080		RELEASE PLATE
31	S1-851-040-110		R.C.SPRING (M)
32	S1-851-160-020		FF SW PLATE
33	S1-851-160-060		FF SW PLATE SPRING
34	S1-851-020-420		BUTTON LEVER SPR(P)
35	S1-851-073-010		FF GEAR ARM(F)ASSY
36	S6-401-011-720		LEAF SW MSW-1290CV
37	S6-002-030-230		MOTOR EG-530AD-2F
A	S9-P33-200-320		DEL TITE SCREW M2-3
B	S9-180-000-000		C TAP SCREW M2-4
C	S9-876-000-000		P WASHER 2.1-5-0.5
D	S9-889-000-000		P WASHER 2.1-3-0.3
E	S9-421-000-000		P WASHER 1.2-3-0.25
F	S9-C19-173-030		TSS 1.7X3
G	S9-888-000-000		P WASHER 1.2-3-0.4
H	S9-999-000-090		P WASHER 3-8.5-0.13
I	S9-181-000-000		C TAP SCREW M2-5 (+)
J	S9-C19-174-030		SCREW,TSS M1.7-4

TAPE MECHANISM EXPLODED VIEW 1/1 (EXCEPT 78/76)



TAPE MECHANISM PARTS LIST 1/1 (EXCEPT 78/76)

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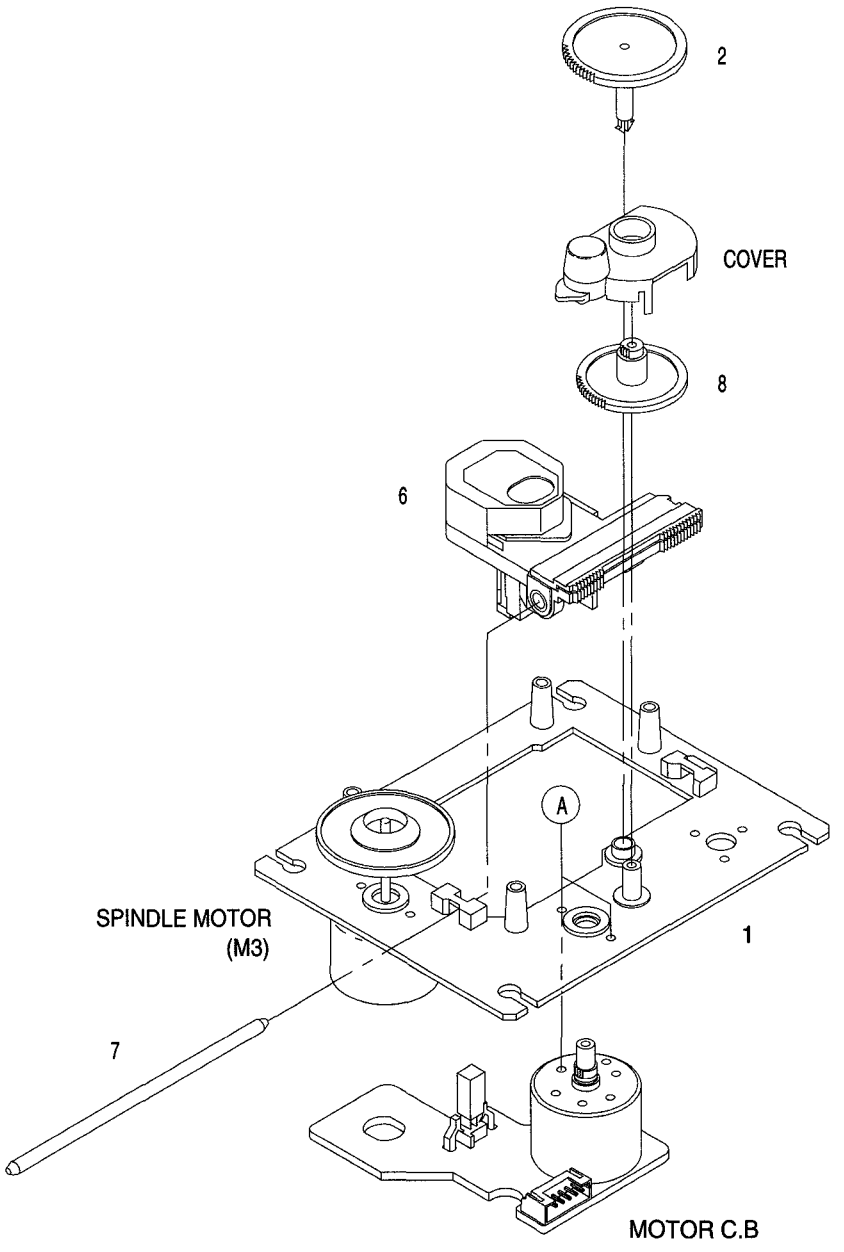
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	S1-921-030-4A0		HEAD BASE
2	S1-821-030-070		AZIMUTH SPRING
3	S1-921-030-090		PANEL P SPRING
4	S1-921-260-050		GEAR PLATE SPRING
5	S1-921-265-020		GEAR PLATE ASSY
6	S1-921-140-370		P ARM COLLER
7	S1-921-140-340		P ARM
8	S1-921-030-110		HEAD PANEL
9	S1-921-143-010		BASE ASSY
10	S1-921-141-8A0		M CONTROL SPRING
11	S1-921-260-4A0		SENSING LEVER
12	S1-921-043-090		PINCH ROLLER ARM ASY
13	S1-921-130-010		EJECT SLIDE LEVER
14	S1-921-141-3A0		P CONTROL SPRING
15	S1-921-140-550		PAUSE LEVER(E)
16	S1-921-140-120		PAUSE LEVER SPRING
17	S1-921-140-110		PAUSE STOPPER
18	S1-921-140-150		BUTTON LEVER SPRING(B)
19	S1-821-011-590		E KICK LEVER
20	S1-921-140-140		BUTTON LEVER SPRING(A)
21	S1-921-140-200		PR STOPPER
22	S1-921-140-090		SWITCH ACTUATOR
23	S1-921-140-080		PUSH BUTTON ACTUATOR
24	S1-921-140-190		PLAY BUTTON LEVER
26	S1-921-140-040		REW BUTTON LEVER
27	S1-921-140-050		FF BUTTON LEVER
28	S1-921-140-060		STOP BUTTON LEVER
29	S1-921-140-600		PAUSE BUTTON LEVER
30	S1-821-100-700		FF GEAR
31	S1-921-050-060		SENSER
32	S1-921-053-030		TAKE UP REEL ASSY
33	S1-821-100-980		PACK SPRING
34	S1-921-053-040		SUPPLY REEL ASSY
35	S1-821-100-990		BACK TENSION SPRING
36	S1-921-140-030		REC BUTTON LEVER
37	S1-921-140-170		P.S.LEVER SPRING
38	S1-921-073-040		RF CLUTCH ASSY
39	S1-921-070-030		RF BELT
40	S1-921-260-020		CAM GEAR
41	S1-921-140-160		E ACTUATOR SPRING
42	S1-921-093-030		FLYWHEEL ASSY
43	S1-921-090-040		MAIN BBELT
44	S1-921-120-010		MOTOR PULLEY
45	S6-002-030-220		MOTOR EG530AD-2B
46	S6-209-100-100		E HEAD PH-K380-MS1
47	S1-921-030-050		MG ARM
48	S1-921-140-210		REC BUTTON LEVER SPRING
49	S1-821-100-690		RECORD SAFETY LEVER
50	S1-921-120-540		MOTOR BRACKET
51	S1-821-010-500		PLAY BUTTON LEVER SPRING
52	S6-201-011-110		R.P HEAD
53	S6-401-011-490		LEAF SW MSW-1541T
54	S1-921-015-010		CHASSIS ASSY
55	S1-921-030-100		MG ARM SPRING
58	S1-510-020-020		REC SPRING PLATE
59	S1-821-120-660		MOTOR RUBBER
60	S1-921-010-160		SIDE BRACKET
A	S9-P04-200-310		TAPPING SCREW 2-3
B	S1-851-140-180		MOTOR COLLER SCREW
C	S9-679-000-000		P TAP SCREW M2-5
D	S9-999-180-090		TAP SCREW M2-4.5
E	S9-004-000-000		SCREW M2-6
F	S9-P01-200-310		+ SCREW M2-3
G	S9-922-000-000		AZIMUTH SCREW M2-8
I	S9-422-000-000		P WASHER CUT 12-3.8-0.3
J	S9-999-030-130		P WASHER CUT 1.45-3.8-0.
K	S9-882-000-000		P WASHER 2-3.5-0.4
L	S9-999-000-030		P WASHER2.1-4-0.13
M	S9-999-200-410		P TAP SCREW M2-3
N	S9-180-000-000		C TAPPING SCREW M2-4
O	S9-P05-200-810		S TAPPING SCREW M2-8
R	S9-539-000-000		Y WASHER B S 0.2T

CD MECHANISM EXPLODED VIEW 1/1



CD MECHANISM PARTS LIST 1/1

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If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	9X-262-620-210		MOTOR CHASSIS ASSY
2	92-626-907-010		GEAR(A)
6	87-A90-468-010		PICK UP KSS-213C
7	92-626-908-010		SHAFT SLED
8	92-627-003-020		GEAR(B)(RP)
A	97-621-255-150		SCREW+P2-3

REFERENCE NAME LIST

ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP, CHIP
C-CAP TN	CAP, CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES, CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP, CERA-SOL
CAP, E	CAP, ELECT
CAP, M/F	CAP, FILM
CAP, TC	CAP, CERA-SOL
CAP, TC-U	CAP, CERA-SOL SS
CAP, TN	CAP, TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP, ELECT
FILT	FILTER
FLTR	FILTER
FUSE RES	RES, FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP, PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES, NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC CAP	CAP, CERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
TRIMMER	CAP, TRIMMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER

MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESHIVE	SHEET ADHESHIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BATT	BATTERY
BRG	BEARING
BTN	BUTTON
CAB	CABINET
CASS	CASSETTE
CHAS	CHASSIS
CLR	COLLAR
CONT	CONTROL
CRSR	CURSOR
CU	CUSHION
CUSH	CUSHION
DIR	DIRECTION
DUBB	DUBBING
FL	FRONT LOADING
FLY-WHL	FLYWHEEL
FR	FRONT
FUN	FUNCTION
G-CU	G-CUSHION
HDL	HANDOL
HIMERON	CLOTH
HINGE, BAT	HINGE, BATTERY
HLDR	HOLDER
HT-SINK	HEAT SINK
IB	INSTRUCTION BOOKLET
IDLE	IDLER
IND, L-R	INDICATOR, L-R
KEY, CONT	KEY, CONTROL
KEY, PRGM	KEY, PROGRAM
KNOB, SL	KNOB, SLIDE
LBL	LABEL
LID, BATT	LID, BATTERY
LID, CASS	LID, CASSETTE
LVR	LEVER
P-SP	P-SPRING
PANEL, CONT	PANEL, CONTROL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MO	PULLY, LOAD MOTOR
RBN	RIBBON
S-	SPECIAL
SEG	SEGMENT
SH	SHEET
SHLD-SH	SHIELD-SHEET
SL	SLIDE
SP	SPRING
SP-SCREW	SPECIAL-SCREW
SPACER, BAT	SPACER, BATTERY
SPR	SPRING
SPR-P	P-SPRING
SPR-PC-PUSH	P-SPRING, C-PUSH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL

サービス技術ニュース	
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